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Experiential learning with horses for leadership and communication skills development: toward a model

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Abstract: Beyond traditional training approaches, equine assisted learning (EAL) is an experiential learning method in which participants interact and conduct exercises with horses, which fosters a unique environment conducive to personal and professional development. Theorised benefits include increased self-awareness, emotional intelligence, communication and authentic leadership. We examine the long-term effects of this method by interviewing experienced professionals who participated in programs conducted in different centres. Results indicate that participants perceived EAL as an effective approach to nurture interpersonal skills, initiating changes at individual and group level. A model emerged from the analysis: 1) the context of interacting with horses, facilitated by coaches, influences; 2) participants' perceived awareness (of themselves, others, and how to lead); 3) behaviour in terms of non-verbal communication, relationships, and leadership. The model supports instructors and researchers in understanding how interacting with horses sparks changes and developments of skills and mindsets relevant to organisational challenges.

Keywords: equine assisted learning; organisational training; lifelong learning; self-awareness; leadership development; communication skills.

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1 Introduction

The current work environment is characterised by novel challenges and turbulent times (Edwards and Leigh, 2021): organisations and leaders need to adapt to survive and thrive. Leadership, communication, teamwork and interpersonal skills are highly valued in contemporary organisations (White and Guthrie, 2015). This heightened focus on soft skills, relational aspects, intuition, adaptability and emotional intelligence (Ashkanasy and Tse, 2000) is a real challenge. Indeed, the increasingly numerous and complex skills required at work are not exactly the same as they used to be, and are harder to develop (George, 2000; Avolio and Gardner, 2005; van Velsor et al., 2010; Day and Sin, 2011; Gonin et al., 2011; Herbst and Conradie, 2011; Clayton, 2012; Castelli, 2016).

Training and development initiatives thus have an essential role to play in successful change implementation (Maheshwari and Vohra, 2018). Leadership development has actually become a source of competitive advantage (van Velsor et al., 2010). Leadership is indeed a key contributor to organisations' success and can have significant effects on working culture, innovation and teamwork abilities, among others (Goleman, 2000; Longenecker and Insch, 2018). Fostering leadership development in all individuals, helping learners self-identify as leaders and empowering them, is essential for the needed transition to a more sustainable society (Burns et al., 2015).

In this light, the academic literature is moving towards a new model of leadership, away from the traditional heroic/control style and rather emphasising the importance of inter- and intra-personal skills, which include identity, personal development, critical thinking, as well as emotional, social and spiritual intelligence (George, 2000; Duff, 2010; Day and Sin, 2011; Clayton, 2012; Maziere and Gunnlaugson, 2015). It calls for new leadership training programs, centred on emotions, character and collaboration. Traditional methods are misaligned with current organisational needs, since they focus too much on the individual leader, lack a team-building approach, and concentrate predominantly on conventional aspects such as strategic, financial and decision-making capabilities (Gonin et al., 2011; Clayton, 2012; Kelly, 2014).

Management training should be oriented towards team rather than individual learning, and intuitive development and self-discovery should complement analytical conditioning (Gehrke, 2009; Kelly, 2014). Furthermore, particular emphasis should be placed on developing emotions and emotional intelligence in leaders, managers and team members (George, 2000). Programs essentially need to shift from teaching to learning. For sustainable development as well, key competencies – e.g., values thinking (normative), collaboration, or self-awareness – must be learned through action, experience and reflection (UNESCO, 2017).

In this paper, we aim to investigate how equine assisted learning, an innovative experiential training method facilitated by horses, can be relevant for organisations. In EAL programs, participants do not need to be familiar with horses or horseback riding

(Skolen and Paul, 2003; Cameron and Robey, 2013; Pendry and Roeter, 2013; Perkins, 2018). The experience is conducted by interacting with horses on the ground, with progressively less external control (e.g., halter and lead ropes). This deeply emotional learning method is increasingly utilised for organisational training, with over a thousand programs in the USA alone, and promises to be particularly suitable to initiate personal change and meet evolving organisational needs (Strozzi, 2004; Mullen, 2010; Bachi, 2013; Stock and Kolb, 2016). However, scholars have not yet provided a solid theoretical basis for understanding and structuring the mechanisms that make EAL a valuable learning method.

Our study makes three novel contributions:

- 1 it investigates different programs, thus lowering the potential bias related to the ability of one specific EAL coach or centre
- 2 it investigates the effect of EAL several months to years after the training occurred, offering a long-term perspective of the training effects
- 3 it proposes an empirically grounded theoretical model.

This paper is structured in four sections. First, the literature review provides support for the relevance of EAL for organisational training. Next, we describe the research methodology. We then present the results of our qualitative study, followed by a discussion. Finally, we outline the study's limitations and implications, and draw conclusions.

2 Literature review

2.1 EAL: an experiential learning method

Equine assisted learning (EAL) is an educational approach that promotes human growth and development in an environment that fosters learning and self-discovery [Ewing et al., (2007), p.60], based on the experiential learning paradigm (Dewey, 1938; Kolb, 1984). EAL encompasses experiential outdoor activities in which interacting with horses leads participants to explore the consequences of their behaviours (Strozzi, 2004; García, 2010; Bachi, 2013). Experiential programs outside the classroom – compared to traditional courses – are found to be particularly useful for management education (Bakhru, 2018), leadership training (Goleman, 2000), and tackling organisational change (Middel and McNichols, 2006), but it is also challenging for educators (Sanderson, 2021). According to the learning theory of constructivism, learners need to take an active role in reflecting on their experiences to create mental representations and thus incorporate novel insights into their mental schemas (Dewey, 1938). Furthermore, the experience heightens emotions, which improves learning and retention (Bowen, 2014). Horses become partners in the learning process, with the facilitation of an experienced trainer. Such programs are already used in at least 39 universities in the USA as reviewed by Fry et al. (2018), including the University of Kentucky (Pohl, 2015), Ohio University (Stock and Kolb, 2016), the National University (Gehrke, 2009), and in a variety of executive training programs worldwide (Stock and Kolb, 2016).

The atypical setting makes the training more challenging, emotional and memorable, thereby improving participants' involvement (Strozzi, 2004; Duff, 2010; Meola, 2016).

Benefits are expected to be long-lasting, due to the emotional nature of the training with animals (Balconi, 2020), active involvement of participants, and direct feedback offered by horses (Gehrke, 2009; Meola, 2016). This is especially interesting considering these programs’ time-efficiency when compared to the usual duration of new skills learned in traditional training programs (Strozzi, 2004; Rector, 2005; Duff, 2010).

In a typical session (summarised in Table 1), the trainer asks participants to conduct exercises with horses, such as inviting an unbridled horse to follow them or walk on a circular path, or to simply observe and be with horses in their natural environment. Insights are gained from active hands-on learning with the horse and knowledge is created by reflecting on the horse’s response to the activities conducted, with the help of an experienced coach or facilitator (Mullen, 2010; Stock and Kolb, 2016). For organisational training, a consistent part of exercises are often conducted in groups: seeing and comparing how colleagues interact with horses provide participants with novel and sometimes shocking insights.

Programs can be developed in intensive 1- or 2-day sessions, as is common with executive training, or be spread over 6 to 10 weekly meetings (Pendry and Roeter, 2013).

Table 1 The EAL interaction process

<i>Stages*</i>	<i>Interaction and learning process [based on Cameron and Robey, (2013), pp90–94; Maziere and Gunnlaugson, (2015), pp14–15; Stock and Kolb, (2016), p45]</i>
1	First contacts with the herd of horses, observations and discussions.
2	Direct interactions with first, feedback from horses, leading to observations and self-reflection on how to react and improve.
3	Perception of the horse as a partner as opposed to a challenge, resulting in observation, letting go, and focusing on trying to collaborate.
4	Trying different approaches, use of intuition, trust and action: the participant will become aware of his/her abilities and impact on others.
5	Immediate application of these abilities and testing of one’s ability to achieve mutual understanding, respect and reach task’s goals through free work: heart, brain and body are expected to connect.
6	Conclusion of the self-development experience with self-evaluations, taking a step back, leading to heightened assertiveness, awareness and self-reflections of change.
7	(Self-)identification of behavioural changes to be made.

Note: *Each stage usually includes different sessions with a variety of activities.

2.2 *Benefits of learning with horses*

The idea of deploying horses in management training can seem surprising, but research in psychotherapy has well-established the benefits of interacting with horses for therapeutic purposes and provides the foundation of its relevance for organisational contexts (Strozzi, 2004; Mullen, 2010; Bachi, 2013; García, 2013; Stock and Kolb, 2016). Following the emergence of EAL programs and the publication of popular books on learning with horses (Strozzi, 2004; Rector, 2005; Kohanov, 2015), academics have started investigating this novel experiential training method. Extant literature shows that horses are great facilitators of self-development and can bring participants many benefits including self-confidence, self-awareness, communication skills and leadership abilities – skills that are associated with higher general well-being, positive life outcomes and

organisational performance (Strozzi, 2004; Hallberg, 2008; Gehrke, 2009; Duff, 2010; Bachi, 2013; García, 2013).

Horses have a small frontal cortex and consequently do not separate feelings from behaviours (Gehrke, 2009 based on Grandin and Johnson, 2005). Thus, they act as a powerful and honest mirror that reflects people's emotions and reveals participants' personality traits, behaviours, and leadership skills (Kohanov, 2001; Strozzi, 2004; Rector, 2005; Gehrke, 2009; Bachi, 2013; García, 2013). Furthermore, horses' actions are not influenced by a person's race, economic status or organisational position (Gehrke, 2009), making such training valuable for social inclusion.

Individual exercises give participants a first-hand experience into the complex leader-follower relationship dynamics (Strozzi, 2004; Gehrke, 2009; Bachi, 2013; García, 2013). Understanding one's strengths and weaknesses is essential for personal development and transformation, which in turn enables other changes, such as becoming a better leader (Herbst and Conradie, 2011). Activities can be conducted in groups for an effect on team communication, cohesion and collaboration (Skolen and Paul, 2003; Troth et al., 2012; Gunter et al., 2017). Seeing how teammates operate from a different perspective, and relying on their support creates an insightful and bonding experience (Skolen and Paul, 2003; Gehrke, 2009; Troth et al., 2012; Gunter et al., 2017). These benefits are part of the essential life skills discussed by Cullinane and Montacute (2017) that play a key role in organisational flourishing of individuals, and should thus be prioritised in learning. To help develop these skills, they recommend social and emotional learning activities based on a collaborative approach and feedback: EAL can potentially fulfil these requisites.

Despite the increasing popularity of this learning method from university to executive-level training (Strozzi, 2004; Rector, 2005; Gehrke, 2009; Pohl, 2015; Gunter et al., 2017), few studies have empirically investigated the theorised benefits and limits for organisational learning, predominantly by interviewing participants of EAL programs the author had facilitated (Gehrke, 2009; Stock and Kolb, 2016). Gehrke (2009), for example, recounts numerous benefits of teaching leadership with horses: participants reported having successfully initiated behaviour changes as a result of the training. In the medical field, such training has proven efficient to develop shared leadership in executive nurses (Gunter et al., 2017) and communication skills for students (Carroll, 2013). Yet, Kelly (2014) described the limits of equine-assisted learning for leadership development, pointing out potential issues related to the interpretation of the experience.

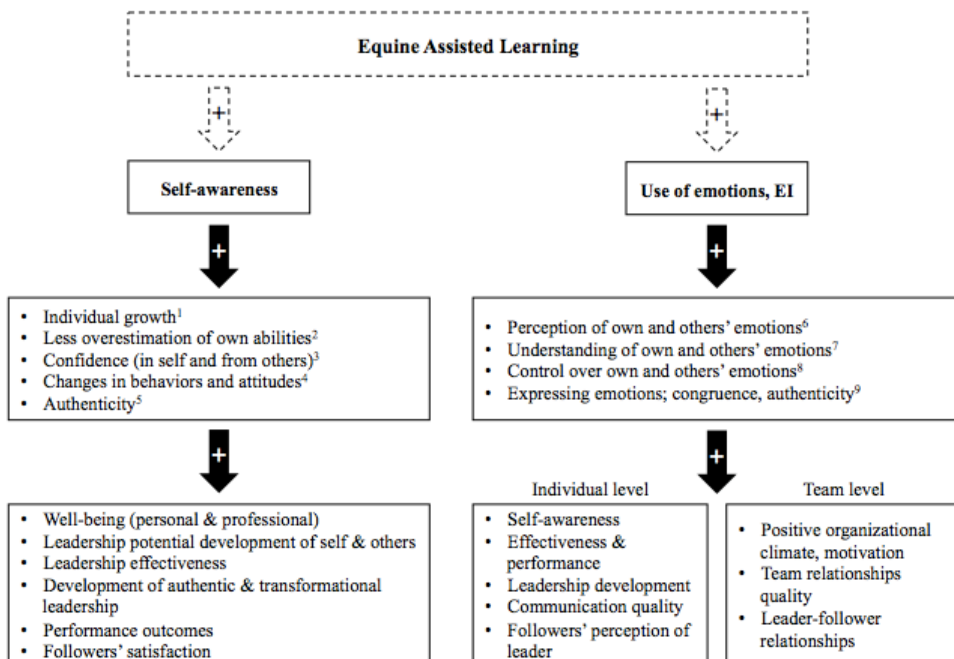
2.3 EAL for leadership development

Efficiently managing horses is similar to working with humans in many regards, particularly for the importance of trust, respect, consistency, and perseverance (Skolen and Paul, 2003; Hallberg, 2008; Bachi, 2013; Koris et al., 2017). The EAL approach can provide both leader (leader-centric, intrapersonal) and leadership (follower-centric, interpersonal) development (Day, 2000).

In EAL, leadership is not about domination but collaboration. Participants are put in a practical leadership situation in which power and control are not the way to influence, and must focus on trying to build a partnership with the horse to reach an objective (Kohanov, 2001; Strozzi, 2004; Gehrke, 2009). This is especially relevant as leaders are now expected to influence through transformational leadership as opposed to hierarchy and power (Clayton, 2012).

Horses have an acute ability to read intentions and recognise the leader in a group (Strozzi, 2004; Hallberg, 2008; Duff, 2010; Stock and Kolb, 2016). Only by displaying good leadership ability – such as giving clear direction with focused energy, trust, respect, and displaying congruence (Gunter et al., 2017) – can the participant convince the horse to complete a task (Bachi, 2013; García, 2013; Maziere and Gunnlaugson, 2015). This experience of leadership, and validation of capabilities from the horse when it decides to follow, can initiate changes: improve self-awareness and self-confidence, anchor participants’ leader identity, and improve their self-efficacy (Kohanov, 2001; Skolen and Paul, 2003; Strozzi, 2004; Duff, 2010; Day and Sin, 2011; Castelli, 2016; Meola, 2016; Stock and Kolb, 2016).

Figure 1 Key benefits from enhanced self-awareness and emotional intelligence development based on the reviewed literature



Note: Main references – ¹Clayton (2012) and Castelli (2016); ²Herbst and Conradie (2011), ³Duff (2010) and Meola (2016); ⁴Strozzi (2004) and Duff (2010); ⁵Herbst and Conradie (2011) and Castelli (2016); ⁶Gehrke (2009) and García (2010); ⁷Gehrke (2009) and García (2010); ⁸Goleman (2000) and Trotter et al. (2008); ⁹Goleman (2000), Gehrke (2009) and Herbst and Conradie (2011).

Knowing oneself is a prerequisite for a person to understand and trust others. Higher self-awareness can facilitate leadership potential, prompt a behaviour change, and thus increase leadership effectiveness as well as contribute to developing authentic, charismatic and transformational leadership styles (Gonin et al., 2011; Castelli, 2016). The reflective approach towards self-perception accuracy – a foundation of EAL programs – is also crucial for conscious personal growth (Herbst and Conradie, 2011; Castelli, 2016).

Moreover, research has shown that training with horses, as it requires emotional congruence, can enhance emotional skills: it is thus relevant to improve emotional intelligence capabilities (Kohanov, 2001; Gehrke, 2009; García, 2010, 2013; Pohl, 2015). Emotional intelligence (EI) is defined as the “subset of social intelligence that involves the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them and to use this information to guide one’s thinking and actions” [Salovey and Mayer, (1990), p189].

A schematic summary of the benefits of EAL for leadership development is provided in Figure 1.

2.4 EAL for improving communication skills

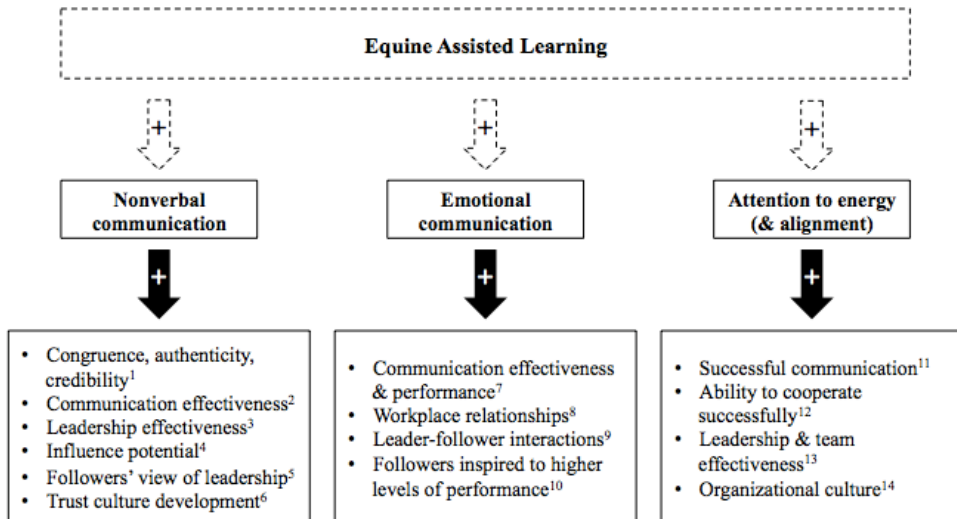
Communication is essential – yet often underestimated – for all social activities as well as the development of employees, leaders and teams (Avolio and Gardner, 2005; Gonin et al., 2011; Troth et al., 2012). It encompasses both appropriate and effective communication, focusing not solely on the content but also on the style, which requires strong listening skills, interpersonal skills and self-awareness (Gonin et al., 2011; Troth et al., 2012). People are often not aware of the non-verbal signals they send (Talley and Temple, 2015): it is thus important that they have more control and understanding of the non-verbal messages they are transmitting, especially to ensure congruence with what they are trying to convey (García, 2013; Gupta, 2013; Maran et al., 2019).

During EAL, without external aid (e.g., halter and lead rope) participants can only influence the horse through their own behaviour and body language: they have to engage in non-verbal communication to get horses to collaborate and display certain skills such as emotional congruence (Hallberg, 2008; Bachi, 2013; Maziere and Gunnlaugson, 2015). The process helps participants understand potential misalignments between what they think they are communicating and what they are in fact communicating (Trotter et al., 2008; Gehrke, 2009; Maziere and Gunnlaugson, 2015).

Emotions are important for good communication and are mostly communicated non-verbally (Byron, 2007; Troth et al., 2012). EAL can help develop emotional awareness and expressiveness, thus contributing to improving communication effectiveness at both the individual and team levels (Strozzi, 2004; Gehrke, 2009). It can also help with learning to be aware of one’s own energy: individuals can benefit from better understanding the type of energetic connection they create with others through their behaviour, as it would allow them to be more efficient with proper energy-intensive non-verbal expressivity (Gehrke, 2009; Duff, 2010; García, 2013; Maran et al., 2019).

Overall, people learn from the horse’s reaction to their behaviour, with the help of the coach for interpretation. The interaction leads to a better understanding of themselves, potential misalignments between what they thought they were communicating and what was actually perceived, and how they might need to change to communicate more efficiently (Trotter et al., 2008; Gehrke, 2009; Koris et al., 2017). A major theorised advantage of EAL is its twofold impact at the individual and group levels (Gehrke, 2009; Stock and Kolb, 2016). A schematic overview of the reviewed effects of EAL on communication skills development is provided in Figure 2.

Figure 2 Key effects of non-verbal communication skills, emotional and energetic communication improvements based on the reviewed literature



Note: Main references – ¹Gupta (2013), Talley and Temple (2015) and Meola (2016); ²Trotter et al. (2008) and Maran et al. (2019); ³Koris et al. (2017); ⁴Cameron and Robey (2013); ⁵Maran et al. (2019); ⁶Castelli (2016) and Koris et al. (2017); ⁷Troth et al. (2012); ⁸Wong and Law (2002), Troth et al. (2012) and Castelli (2016); ⁹Wong and Law (2002); ¹⁰Talley and Temple (2015); ¹¹Garcia (2010) and Maran et al. (2019), ¹²Gehrke (2009) and Duff (2010); ¹³Maran et al. (2019); ¹⁴Gehrke (2009).

3 Research method

3.1 Study purpose and research method

Although programs with horses are increasingly popular and deployed in several universities, academia has shied away from investigating the effects of learning from interacting with horses, and an empirically-based model explaining such effects is lacking. The literature consistently suggests that EAL is relevant for leadership training in particular, but empirical studies have not yet considered the long-term effects that participant perceive, nor structured them into a comprehensive model. As outlined in the literature review section, existing EAL studies were conducted in a single EAL centre shortly after the trainings. This methodology, typical of novel fields of investigations, has the drawback that the ability of the specific trainer cannot be disentangled from the method's effectiveness. Our study seeks to start filling these gaps by acquiring novel data through interviews conducted with people who participated to a variety of different EAL programs, with which the authors are not involved, several months after the training occurred. The guiding research question (RQ) is: *which effects do participants perceive on their leadership and communication skills following equine assisted learning in an organisational training context?* With the final aim of developing a model to structure the perceived benefits of EAL for communication and leadership development, we

conducted semi-structured interviews with ten open-ended questions, based on the above reviewed literature (see Appendix 1 for the complete list of questions), to get insights into people's experience (before, during, after the training).

3.2 *Sample and data analysis*

To identify the sample, we focused on the main centres providing EAL in one country: France. The first author identified 4 among the most well-known and reputable centres in France that offer EAL workshops for individuals, groups and companies. She contacted by phone, email or LinkedIn, participants who had taken part in one of these programs over the past years. Their contact information was retrieved from public sources (i.e., the centres' websites or social media). Convenience and snowball techniques were used to identify voluntary participants who were interviewed over one month until theoretical saturation was reached.

The resulting sample is composed of 14 subjects: nine men and five women aged 28–58 (mean age: 42) working in different industries, who participated to EAL programs conducted by four different training centres in France. The sample differentiates our work from extant studies that collected data in a single EAL organisation (whether within a university or a private learning centre). Participants belong to different organisational levels: seven executives, five managers and two junior employees, from a variety of different industries (retail, IT, film making, cosmetics, banking, pharmaceutical and public agencies).

Interviewed subjects had taken part in programs that lasted from half a day to 2 days, and occurred between six months and three years prior to the interviews (see Appendix 2 for a detailed list of participants' characteristics and programs attended). Collecting data several months after the training is a key uniqueness of this study compared to the reviewed literature, as it allows to investigate the long-term effects of EAL.

The interviews were conducted in French by the first author over the phone, and lasted 23 minutes on average (15–50 minutes). Conversations were recorded and transcribed; resulting in a total of 32.192 words in 32 pages single-spaced (available in French upon request). Ethical committee approval was not necessary for this methodology. Explicit consent to participate to the study was obtained from all interviewed subjects. The analysis was conducted with inductive open coding in Atlas.ti to establish emerging themes, using enforced ignorance. Data was progressively reduced with focused coding; identifying the most relevant and frequent topics, as well as similarities between codes. Axial coding was also used to distinguish patterns and understand how themes were connected. Going beyond the data, codes were then structured and grouped into conceptual categories and sub-categories.

3.3 *Settings: EAL programs*

To control for a potential confounding effect of the specific training program, participants were asked to describe the workshop they took part in. It resulted that all subjects participated in similar, highly structured, EAL sessions, although some went as a team and others individually. Interviewees explained that during the training they had to interact with and guide a horse in a round pen/arena without a lead rope to help control it, getting the animal to move around at a particular speed, change speed, direction, pass obstacles, go through a certain course, etc. These exercises were conducted individually

and/or in groups. Other solo activities included gaining the horse’s trust to get it to join-up and follow-up. Coaches assisted participants by explaining exercises, helping overcome challenges – not necessarily instructing participants on how to successfully complete tasks. They also facilitated debriefing sessions to enable self-reflection and learning, usually more on the positive aspects of the interactions.

4 Results

The open coding of the data led to the identification of 24 recurring topics (resulting codes displayed in Appendix 3, first column to the left), which were grouped into macro-topics and organised into a model with three overall themes:

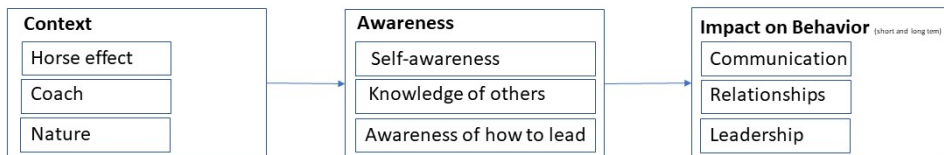
- 1 the context of interacting with horses in nature
- 2 the increased awareness of themselves and of others
- 3 the resulting changes in participants’ behaviour.

4.1 Conceptual model

Structuring the insights gained from the data coding, we derive a model that comprehensively displays and organises the three macro-categories of EAL effects, as outlined above (and illustrated in Figure 3):

- 1 the context of interacting with horses
- 2 the awareness of self and others
- 3 the resulting changes in communication, relationship building and leadership approach.

Figure 3 Conceptual model of equine assisted learning’s perceived effects (see online version for colours)



4.2 Context

Overall, interviewed participants reported having enjoyed the experience and seen its relevance to real life and the professional world, and would recommend it. Powerful words such as *surprising*, *enriching*, *striking* and *impressive* were used by subjects to describe the workshops. This perception was attributed to the innovative, original context and the presence of horses. According to the subjects, the unusual experiential learning setting helped raise their interest and foster team building. Interviewees described horses as a valuable and inspiring element that made them reflect and learn about themselves and others. Some participants expressed that they appreciated being immersed in nature

and feeling (re)connected to it, by taking a step back, being grounded in the present moment and conscious of the environment. They noted the importance of the experiential aspect of the training, encompassing staging of real situations and direct applications, factor they felt was rendered even more useful and striking by the original context and presence of horses. A few interviewees also pointed out the activities' efficiency proportionately to their brief duration. One subject reflected:

“Theory remains theory. Having a contact with the animal, seeing its behaviour with you, seeing how you can interact with it, that was extremely enriching.” (I.7)

Participants felt that there is much one can learn when interacting with a horse. They expressed appreciation for the horse being neutral, revealing and intimidating; making them feel vulnerable but creating a favourable climate for learning and awareness to occur, in which participants opened up. Coming from the horse, the feedback was more easily accepted, not questioned and less ‘violent’ than if it had come from another person, as a participant outlined:

“From the presence of horses alone, it creates an exceptional, original context that we remember. Horses also have a soothing effect, even for people who are afraid of them, and I find it very favourable to team exchanges.” (I.3)

Two out of 14 subjects voiced some scepticism about this new type of training; they did not know what to expect and were not convinced of the utility of a horse to gain relevant benefits. The role of the coach emerged as fundamental to support participants in making sense of the horse's behaviour, reflecting on the experience and creating accurate conceptualisations applicable to their personal and professional lives. Participants noted that coaches, who were more like guides than trainers to them, were critical to understand the responses they got from horses, and to anchor it all.

“It was disturbing how who I was, my faults, etc. could come out in such a binary, clear way in front of a horse, and how in the end the coaches did not even need my explanations, they had already fully grasped my problem.” (I.2)

4.3 *Awareness*

Participants were surprised by the revelatory nature of horses and validity of the insights they received, making EAL a real emotional shock for some. They felt destabilised, vulnerable, and humbler facing this big, impressive animal. This richness of emotions was for them a big part of what made the training useful. Beyond a team building exercise, people emphasised it was an experience they lived and shared together, and even more so as horses put them all at the same level, removing hierarchy and making everyone equal. In front of the horse, participants said they could not cheat. They discussed how they and/or their colleagues thus had to open up and let go; exposing their authentic and true self.

“It was very intimidating; I did not know what to do. I was completely destabilized by the horse who was not listening to me and did not respond to my requests. [...] It is quite strong emotionally. We learn, we insist, we try, we look for solutions; at least that's what I did.” (I.5)

“Things are always conveyed more profoundly and on a more lasting basis when there is emotion. And there, the emotion is very intense. [...] As a new

team leader, it allowed me to go much faster in the discovery of everyone's character." (I.6)

"The horse reacts as a mirror to what we do so there is no pretending, no escaping: we need to do the exercise and we are judged on it. That's what's interesting; it is direct." (I.14)

These specific features of EAL led to several perceived insights. The most discussed topic by interviewees was a raise of awareness and questioning things, during and after the EAL program, fostered by horses reacting as mirrors to people's behaviour. Indeed, they evoked their contact and interaction with the horse as an enlightening experience, sparking reflections about themselves and/or others. The horses-coaches combination is what enables one of EAL's major perks: the immediacy of feedbacks that participants can act on right away; directly seeing and feeling the effects of their changes, as outlined by the following quotes:

"From the very first exercise the horse reflected things about us that were extremely accurate. [...] By making changes in my attitude in the second activity I immediately saw the effects and that was very interesting. It was already very clear with the horse, but then having the coach put words on what happened guided us to further anchor the event." (I.1)

"We are on a real-time basis and because the horse acts like a mirror, it acts instantly [...] we are directly facing the problem so we have to deal with it right away [...] we are directly confronted to what we are not doing right, so we can set up solutions to succeed at once." (I.8)

These revelations occurred on several levels. Self-awareness, or self-discovery, was the most consistently discussed effect, in both the sense of the being (personality, traits, potential, etc.) and doing (behaviours, actions, interactions). For participants who felt they already knew themselves well, it validated their perception, thus demonstrating the accuracy of horses' insights. A few interviewees also reported how this self-awareness was accompanied by an open-mindedness and increased self-confidence. Discovery and/or better understanding of others – again multi-faceted, in terms of their personalities as well as their behaviours – was the second main point raised in this context, helping develop a group consciousness and improve interactions among members.

"I learned a lot about other members of the team. [...] I understand better some behaviours or reactions of my teammates and it helped me decrypt them a bit. [...] I now know thanks to the workshop that if one reacts a certain way it's because in their nature, in their behaviour, they are this specific type of profile." (I.14)

Therefore, the analysis evidenced that participants understood how these effects were beneficial in a real-life or professional context. Higher self-awareness is seen as essential to then improve the way one behaves, manages, leads, and interacts. Since EAL is inherently based on introspection, the possibility that younger people may not have the necessary distance, background and perspective to fully embrace and integrate the learning potentials of such an experience, thereby limiting the range of resulting possible outcomes and concrete changes, was considered. While younger interviewees were still satisfied with the training and did feel some effects, they did not elaborate as much as their more experienced counterparts on the perceived impacts of the EAL workshop they took part in, particularly at the individual level. In that regard, the data analysis could suggest that for them, the consequences from EAL might be fewer, weaker, and/or

different; thus hinting that participants' individual characteristics such as age, position or years of experience might moderate one's ability to fully embrace and take advantage of the EAL experience.

4.4 Behaviour

The perceived effect of EAL on behavioural change is exemplified by a participant:

“the one thing I can say is that one cannot emerge unchanged psychologically and affectively from this kind of experience, it is impossible in my opinion.” (I.6)

The analysis highlighted a three-fold perceived impact regarding concrete changes: in terms of relationships, communication, and leadership abilities. First, the creation of group cohesion and understanding of group dynamics was most frequently mentioned. Participants particularly expressed that EAL helped them find their place, better integrate into their team, realise that each member matters, and that cohesion is crucial to attain goals and be successful. Emotions were often discussed: some participants realised that after the training they were better able to feel their emotions and sensations, as well as control them; being calmer, with the capacity to take a step back before acting, and overall being more present in the moment.

“I know that today I react differently, I temper myself and analyse much more than before when I was quite impulsive [...] so I try to pay closer attention to this, analyse and temper my reactions more.” (I.7)

“That's when we feel the team; we need to be cohesive, to act together, and the horse feels it. He sees that there is a common energy, he sees its value, he sees it is coherent, and he follow and does what we are asking without touching him. It shows that there needs to be coherence but also team cohesion.” (I.8)

Interviewees also largely discussed how EAL helped them in the long term to better interact and cooperate with others, build stronger relationships, thus being able to create group cohesion. In addition, participants grasped the importance of coherence in communication as they practiced it first-hand with the horse. More generally, they mentioned understanding how to communicate more efficiently: they realised the necessity to speak out, the power of listening, the need for constant communication in a team, as well as how to be clearer and better listened to. EAL also allowed them to realise the importance of non-verbal communication, attitudes, energy and intentions in particular. To communicate properly and be listened to, one needs to pay attention to more than just the message.

“This workshop was more an awareness of the energy we release and the intentions we release, that are as important as the message. [...] That's why we work with horses, because they perceive these energies and waves better than humans.” (I.4)

“The horse only listens to what we are asking it to do if we give a precise, clear instruction and do not contradict ourselves, otherwise the horse cannot understand. In fact, it is similar with humans. [...] It was very interesting; these are things we cannot do with theoretical training.” (I.5)

Thirdly, changes were felt regarding leadership abilities. Seeing the horse's reaction, practicing correct leadership (e.g., attitude, posture, energy, coherence) and becoming more aware of one's own skills sparked revelations, confidence, and changes. For

instance, one participant said he discovered he was a leader whereas he had no idea. Another participant realised during an exercise that it was possible to lead in a different way than what he/she had always assumed: with trust. The removal of status and hierarchy also caused some reflections on the limitations of *power* and the efficiency of listening, relationship building and value sharing in leadership. The genuine quality of EAL, as previously mentioned, is also essential as it brings out people's true nature and helps them be(come) authentic leaders.

"The point of the horse is that we can succeed in earning its respect [...] we need to release enough presence, strength, authority, but without any brutality because it would have the opposite effect." (I.11)

"If I roughly schematize, it is: do we want to follow someone that is slumped on himself and tells you to trust him, or do we follow more naturally someone who stands up straight and seems confident? That's what the horse does." (I.12)

Finally, discrepancies of opinions were found regarding how long these effects could last. Several participants said they still felt EAL impacts years later, yet others voiced reservations. Although benefits are indisputable for all, some participants proposed that improvements to the program could ensure longer-lasting impact. Specifically, participants thought the lack of follow-up was a missed opportunity, and that it might be necessary to repeat the experience for more durable impact.

"I saw my own changes; not right away, 6 months, 1 year, 1 and a half year later, and I made progress. I improved in my leader posture, I found my place as a manager, I learned to delegate." (I.5)

"The truly useful training is the one that at a given time causes something to click, and there I think this [horse] vector does this, and it is this 'click' that will last." (I.9)

"People tend to go back to their initial state if changes are not maintained. [...] They remember if was great, but in the end, it is not enough. [...] On the spot it is extremely efficient, but it needs to be extended in time." (I.12)

5 Discussion

5.1 Implications for Equine Assisted Learning and leadership training

The analysis outlines a threefold effect of EAL on long-term behaviour change: in terms of relationships, communication, and leadership skills. In comparison, previous studies emphasised these aspects separately [e.g., communication in Perkins (2018) or leadership and relationships in Gehrke (2009) and Stock and Kolb (2016)]. The empirically derived model is comprehensive and aligned with social cognitive theory (Bandura, 1986). In particular, the context of interacting with horses in nature corresponds to the dimension of 'environment' in social cognitive theory; the unique environment created by horses makes participants more aware of themselves and of others – which can compare to the theory's 'cognitions' dimension. This heightened understanding leads to changes in communication, relationship, and leadership behaviours, which corresponds to 'behaviours' in social cognitive theory (Bandura, 1986). According to this theory, learning is as a dynamic triadic reciprocal system of cognitions, behaviours, and environment. In EAL, coaches facilitate thinking and awareness, and horses – whose

reactions act as feedback – spark reflections and learning. Social cognitive theory also suggests that people learn by observing others. EAL's foundation is precisely to learn about oneself by being attentive to the reaction of others: of horses particularly, but also that of other participants when interacting with horses. The reciprocal relation between behaviours and cognitions especially, determinants of human functioning and development according to Bandura (1986), is clearly present in EAL. Thus, this paper brings a distinctive addition to the understanding of EAL as it advances an empirically grounded and theoretically coherent model for the specific context of skills training (Figure 3). In addition, the results expand the application of social cognitive theory to include non-humans and to consider the effect of the natural environment.

Our results are in line with previous research on learning with horses, notably Gehrke's (2009) who found that horses could eliminate boundaries, bypassing differences among people (in particular for cross-cultural settings). Participants considered horses as great enablers of growth because their feedback is easier to accept compared to that of another human, as proposed by Bachi (2013). Benefits of EAL for group dynamics, cohesion and improved interactions/collaboration had been proposed at theoretical level (Skolen and Paul, 2003; Troth et al., 2012) and we found evidence in our study.

In comparison with extant studies, our findings highlight that the EAL expert coach is a key variable to consider when studying EAL effects (as proposed in the model) and can have a considerable impact on learning outcomes. This hypothesis can be related to Miller and Maellaro's (2016) research on experiential learning, in which they propose that root cause problem-solving analysis processes (that in the case of EAL we suggest is facilitated by the coach) leads to a greater level of learning, even more so when it is combined with team reflection – which is also part of EAL.

It emerged from the interview analysis that the extent of work experience might influence how much a person embraces and benefits from EAL. Building on Kelly (2014, p.227) who proposed that gained insights are more complex than a 'simple mirrored reflection of a coherent self', we assume that younger people may lack some perspective to fully integrate the learning potentials of such an experience inherently based on individual introspection, thereby limiting potential outcomes. Relating this to the field of organisational development, Chelliah et al. (2016) found a positive correlation between training participants' characteristics and the transfer of learned skills, also revealing that older employees were more committed. Thus, the amount of work experience could be a relevant moderator to investigate in future studies.

5.2 Implications for management education

This study aimed at exploring the long-term effects that EAL can generate as a training method, specifically on interpersonal skills and leadership abilities. Results suggest that it is possible to learn from horses for personal growth and leadership development. EAL can initiate change at both the individual (e.g., self-knowledge, communication, and leadership) and team level (e.g., knowledge of others, relationships, and ability to work together), thus offering an opportunity for organisations to develop employees' skills and improve team dynamics at the same time. Creating continuous learning opportunities, fostering individual growth and development, as well as encouraging collaborative learning have positive influences on organisational efficiency and performance (Rose and Kumar, 2006; Jyothibabu et al., 2011).

EAL creates a meaningful learning environment (White and Guthrie, 2015) and can be considered a transformational learning method (Baumgartner, 2001). We can infer from our findings that, like good training processes, it follows a learning cycle. In fact, EAL encompasses all four phases of Kolb's (1984) notorious learning cycle. Applying Kolb's conceptualisation to the findings of this study, we can illustrate how learning might occur for students through EAL activities at each phase of the learning cycle.

- 1 Participants *learn by encounter* from attending a workshop, working with the horse, being sensitive to their own emotions, that of the horse and of others, and getting insights on themselves and others through collaboration.
- 2 They *go through reflective observation* as they need to observe, understand the horse's feedback, put themselves in the horse's and others' shoes.
- 3 They then *learn by thinking* when pushed to reflect through introspection or discussions with other participants or the instructor to complete exercises.
- 4 Lastly they *learn by doing*: during each exercises, but most importantly by making changes and applying gained insights to their personal, academic and professional lives (White and Guthrie, 2015).

Results indicate that many elements of equine and human management are similar, and that it is possible to draw and learn from horses to become a better leader. EAL causes self-questioning, increases self-awareness, and reflects the limits of power relationships; that in turn leads to changes in how participants approach leading and interacting with others. Some participants discovered their leadership potential and/or widened their perspective of leadership. This phenomenon can be explained by social role-activity theory (Brickel, 1982), which suggests that beneficial changes in behaviours can arise from positively experiencing the taking up of a new role. In addition, feelings of better emotional management and self-control discussed by some participants are very similar to benefits described by managers in Sanyal and Rigg's (2021) study: our research seems to provide initial evidence that EAL can be an acceptable way for managers to practice mindfulness. EAL thus has the potential to help participants not only experience and practice leadership but also understand, reflect on, and develop their leadership identity, consequently allowing them to improve their self-efficacy (Bandura, 1977). To further connect our findings to learning, it is important to understand how students develop. According to Chickering's (1969) theory of student development, seven interrelated vectors contribute to learners' development and more specifically to the formation of identity (Owen, 2012). We find evidence of all seven vectors in the EAL process: more efficient leadership, communication, collaboration (*developing competence*); better understanding, control and ability to express emotions (*managing emotions*); reflections leading to deeper self-awareness and awareness of others, increased emotional intelligence (*moving through autonomy toward independence*); better understanding of others, ability to work collaboratively (*developing mature interpersonal relationships*); self-discovery, seeing self through a decomplexified lens, higher self-awareness (*establishing identity*); higher self-knowledge and authenticity (*developing purpose*), and more alignment and congruence (*developing integrity*).

From an implementation perspective, EAL is a diversity-inclusive training method that removes social hierarchies. Anyone can participate in a program (except maybe people with severe allergies), as activities are not conducted on the horse but on the

ground, and familiarity with horses or riding is not needed. Workshops are usually facilitated in small groups (~15 participants or less). Programs often include a theoretical part during which leadership principles and the usefulness of horses for management are discussed, making participants more aware of EAL's relevance prior to starting the activities. The model developed in this study (Figure 3) can help coaches and lecturers in communicating and discussing with participants the expected learnings.

Learning with horses is getting more and more popular in developed countries; centres offering EAL programs can be found in an increasing number of locations, though it might be difficult to assess the quality of a specific program/coach. As emerged from the interviews, follow-up meetings should be organised to sediment the learnings. It should be noted that programs can be quite expensive (due to the involvement of horses) and often more time-consuming than classroom lectures: sessions last at least half a day and require more organisation (i.e., transportation of participants to the countryside or bringing horses onsite). Despite these challenges, learning with horses is an appreciated pedagogical method with long-term benefits.

5.3 Limitations and directions for future research

The present study is not free from limitations. Firstly, since participation in the study was on a voluntary basis, there could be a self-selection bias in the sample. Secondly, analysed EAL programs were all based in a single country (France). Thirdly, interview questions mostly focused on communication and leadership. The sole use of oral conversations might also have limited data collection. Finally, the sample size, although standard in such qualitative methods, remains rather limited.

This paper is a starting point for research on EAL in organisations: it will hopefully help reduce scepticism and raise academic interest toward this training approach. Currently, there seems to be a lack of experimental studies to test the benefits of such programs for organisations: researchers could harness the experience from the related fields of psychotherapy and social development, which utilised experiments and compared EAL programs to control groups (Pendry and Roeter, 2013). The proposed model (Figure 3) can provide a basis for a systematic investigation of EAL effectiveness as an educational training method. Future research could test this model with experiments or randomised trials [i.e., as Pendry and Roeter's (2013) study on EAL for children development].

Furthermore, participants in the study raised the question, which future studies might want to explore, of how EAL programs could be optimised to ensure the durability of impact; for instance with follow-up workshops, self-reflection (structured) journaling over time (Coghlan, 1993), or follow-up coaching activities in the organisation. The study identifies EAL as a real driver of changes, yet the transferability and sustainability of learnings is an important factor to consider: a more profound discussion and analysis could be interesting.

6 Conclusions

The purpose of this paper was to investigate EAL as an experiential learning method in which horses are facilitators of communication and leadership skills development, and provide evidence of the benefits of learning with horses for organisations. This study is

the first – to the best of our knowledge – to investigate junior employees, managers and executives from various companies, who took part in different EAL programs. In addition, this study is unique as participants were interviewed many months after the training, thus offering a longer-term perspective on EAL training effects.

Findings are particularly relevant to educators, change managers, and human resources managers. They provide valuable insights by demonstrating that EAL is highly applicable to organisational training and is especially relevant in today's business environment that calls for the development of specific soft skills. We propose that EAL be considered an effective training approach to improve leadership and intrapersonal skills in particular, as well as foster team building, group cohesion and personal growth, among others.

The model derived from the analysis provides an empirically grounded and theoretically coherent structure to understand the underlying factors of this personal and professional growth with horses: the peculiar context of EAL combined with the nature of the horse and presence of coaches creates a favourable climate for learning to occur and improve the training's impact.

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Appendix 1

Interview guide

<i>Questions</i>	<i>Corresponding dimension</i>
1 Why did you decide/want to do an EAL training and what were your goals in doing so?	Relevance for organisations and opinions on EAL
2 How would you describe your personality and attitudes in your life and at work before the training?	Establish participants' pre-program state with the aim to then identify potential changes
3 Were there certain aspects you wanted/knew you had to work on (e.g., inadequate behaviours, skills improvements)?	
4 Could you describe the program you participated to and tell me about your experience (with yourself, others, the horses, the 'coaches', etc.)?	Understand the type and specificities of each program, activities, etc. Narration, storytelling
5 What did you reflect on and learn / take away from the program?	Discussion of the main reflections and learnings from the program
6 Did you discover things about yourself and your teammates (if training done in group)?	Narration, storytelling
7 Did you feel / see some differences in yourself (personally, at work, with others) or did you maybe receive feedbacks on a positive change? Can you elaborate on these changes?	Discussion of the impacts and potential changes that resulted from the program and their durability Narration, storytelling
8 Did the program make you want to establish some concrete changes (personal and/or professional)? Did you - and if yes did they last?	
9 In what way do you think this training with horses was maybe more productive / useful than other more traditional programs?	Value-added of EAL and reasons Relevance for organisations
10 Would you recommend it to other leaders / managers/organisations, and why?	Narration, storytelling

Appendix 2*Interviewed subjects*

<i>Subject number</i>	<i>Gender</i>	<i>Age</i>	<i>Role</i>	<i>Industry</i>	<i>Time since EAL</i>	<i>Program length</i>	<i>Context</i>	<i>Experience w. horses</i>
1	M	35	Executive	Retail	1.5 yrs	2 days	Indiv.*	Very little
2	M	35	Executive	Retail	1.5 yrs	2 days	Indiv.	Very little
3	F	38	Manager	Pharma	3 yrs	2 days	Indiv.	2 yrs riding
4	F	40	Manager	Retail	1 yr	1 day	w/ team	No
5	M	30	Executive	Retail	3 yrs	2 days	Indiv.	Very little
6	M	50	Executive	Software	1 yr	1 day	w/ team	No
7	M	45	Managers	Retail	1.5 yrs	2 days	Team of 2	No
8	M	54	Executive	Film	yrs	1 day	Both	No
9	M	58	Executive	Public agency	1 yr	1 day	w/ team	No
10	F	53	Executive	Cosmetics	6 mths	1 day	w/ team	No
11	F	42	Manager	Public agency	1.5 yrs	1/2 day	Indiv. in group	A little
12	M	53	Manager	Banking	3 yrs	2 days	w/ team	Extensive
13	F	28	Junior	Pharma	6 mths	1 day	w/ team	Very little
14	M	28	Junior	Pharma	6 mths	1 day	w/ team	No

Note: *Individually means the participant took part in the program on their own (not with teammates), not that they were alone.

Appendix 3*Coding schema*

<i>Code</i>	<i>Definition</i>	<i>Coding rule</i>	<i>Example quote</i>
<i>EAL experience</i>			
Context	The context of EAL in the nature is original	The statement must mention the context of EAL	“It creates an exceptional context, original, that we remember” (I.3)
Experience	EAL is an experiential learning method	The statement must indicate that EAL was not just a workshop but a real experience that participants lived	“This is something that we live, we experiment with all our senses, and with an immediate result of the impression we make” (I.11)
Horse element	The horse is an important, useful element	The statement must express that the horse was an important, key element	“We are facing a living being who expresses his emotions, so the impact is much deeper” (I.12)

Coding schema (continued)

<i>Code</i>	<i>Definition</i>	<i>Coding rule</i>	<i>Example quote</i>
<i>EAL experience</i>			
Accuracy	Insights are accurate	The statement must make clear that feedbacks received from horses are accurate	“I was surprised by the accuracy of what I was told about myself” (I.13)
Immediate effect	Horses give immediate feedbacks	The statement must indicate that feedbacks and effects from interacting with the horse are seen/felt right away	“We are faced with the problem, so we have to deal with it right away [...] so effects are immediate” (I.8)
Coach	Importance of coaches	The statement must point out that participants found coaches important for their learning	“It was already quite clear with the horse, but I think it was important for the coach to be here so as to guide us” (I.1)
<i>Awareness</i>			
Self-aw. (global)	Better knowledge of self	The statement must contain a clear indication of increased self-awareness in general terms	“make us understand and aware of who we are, and whether we can adapt...” (I.7)
Self-aw ‘being’	Better knowledge of how self is	The statement must indicate increased self-awareness in terms of the being	“Your strengths, who you are, what you need to interact with others” (I.10)
Self-aw ‘acting’	Better knowledge of how self acts	The statement must indicate increased self-awareness in terms of actions, interactions	“Understand in what way we put pressure even if we don’t sense that we do” (I.12)
Discovery of others	Better understanding of others	The statement must express that the program helped discover and get to know other participants	“I discovered individualities; some juniors really revealed themselves” (I.3)
Awareness	Raising awareness, questioning	The statement must point out that the exercises led to wake up calls, reassessments, etc.	“It enabled me to really question myself” (I.1)
Revelations	EAL leads to revelations, shocks	The statement must indicate that EAL caused revelations, shocks, things to click inside participants	“It was an emotional shock for many because they did not expect this [...] it caused questionings, sometimes quite deep” (I.12)

Coding schema (continued)

<i>Code</i>	<i>Definition</i>	<i>Coding rule</i>	<i>Example quote</i>
<i>Impacts on behaviour</i>			
Learning	EAL led to learning	The statement must contain a clear indication that learning occurred during / following an EAL program	“Most importantly I learned a lot of things, I learned to temper my behaviour [...]” (I.7)
Change	EAL caused concrete changes	The statement must indicate that concrete changes, applications, adaptations occurred after EAL	“It fundamentally changed me. A lot of things changed, honestly, both personally and professionally” (I.12)
Unites	EAL bonds people and teams	The statement must contain a clear indication that EAL contributes to uniting teams and people	“Living something together, that is what creates a bond between individuals” (I.6)
Cohesion	Importance of team cohesion	The statement must indicate that cohesiveness is crucial to teamwork	“This is when we feel the team; we need to be cohesive, have a joint energy, and the horse feels it” (I.8)
Efficient communication	EAL helps raise communication efficiency	The statement must contain a clear indication of learnings that occurred on how to communicate more efficiently	“It was useful in terms of [...] how to be clear in what I am asking, how to not ask for things twice” (I.2)
Non-verbal communication	The non-verbal side is key	The statement must express an understanding of the importance of non-verbal communication and its key aspects	“It was magical, suddenly we felt connected, we understood each other without speaking, through feelings and body language” (I.11)
Coherence	Congruence is key for clear communication	The statement must make clear that it is important to be consistent in verbal and non-verbal aspects when conveying a message	“The horse listens only if we give him a precise, clear instruction with no contradiction” (I.5)
Listening	Listening to others is essential	The statement must point out that active listening is essential to communicate	“That’s what I learned, [...] to listen; it’s when you listen a lot that you can be heard” (I.4)

Coding schema (continued)

<i>Code</i>	<i>Definition</i>	<i>Coding rule</i>	<i>Example quote</i>
<i>Impacts on behaviour</i>			
Intentions	Intentions are important	The statement must indicate that transmission involves one's intention and state of mind	"This program was an awareness of our energy and intentions that are as important as the message" (I.4)
Posture	Importance of posture	The statement must clearly mention the importance or practice of attitude and/or posture	"It's all relative to one's posture and way of asking, this is really a big leader posture exercise" (I.12)
Leadership	EAL impacts the way to lead and manage	The statement must make clear that EAL had an impact on management and/or leadership abilities	"The program was an important evolution factor in the way I manage my employees" (I.1)
Power limit	Power does not cause influence	The statement must express that strength and power dynamics are not necessarily the best way to go to manage/lead	"I realized through the communication with the horse that the power relationship is pointless; what works is sharing values and a vision" (I.9)