

Embodiment and self-narrative in future educators' training: Preliminary findings from the Italian implementation of an Italy–Brazil project

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Abstract: Future educators' training may benefit from learning designs that integrate bodily experience, narrative, and professional reflection. This article reports a pilot study on the first Italian implementation, conducted in Perugia, of the Italy–Brazil project *Autobiographical narration and motricity in future educators' training*. A qualitatively driven convergent mixed methods design was adopted. The protocol included eight sessions based on playful motor activities, autobiographical writing, sharing, and pedagogical debriefing. Thirty-two students produced 223 diary entries; complete data from the pre-post questionnaire and the post-only final test were available for 28 participants. After Holm correction, increases emerged in self-perceptions concerning body schema, symbolic play, role interpretation, the educational value of fairy tales, and wonder. Reflexive Thematic Analysis identified four themes: autobiographical resonance of bodily experience; exposure and trust within the group; movement as a resource for regulation and competence; sensory imagination and aesthetic openness. Integration highlighted selective convergences, complementarity, and divergences, outlining a plausible and situated formative trajectory.

Keywords: embodied education; autobiographical narrative; bodily mediation; educator training; mixed methods.



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1. Introduction

From the perspective of pedagogy of incarnation and symbolic-anthropological bodily and expressive mediation (Naccari, 2004, 2008, 2011), the body is not a mere support for learning, but the concrete condition through which the person inhabits

¹ Authorship attribution: Alba G. A. Naccari developed the theoretical-pedagogical framework and the training protocol, prepared the project data collection instruments, designed and conducted the intervention, collected the empirical material, described the project, protocol, and data sources (§§ 1 and 2.2–2.3), and analysed the facilitators' logbooks (§ 3.2.1). Andrea Zini defined the methodological design and the procedures for data construction and analysis (§§ 2.1 and 2.4), conducted and presented the quantitative analyses (§ 3.1), the RTA of participants' diaries (§ 3.2.2), and the mixed methods integration (§ 3.3), and contributed to their interpretation and discussion (§§ 4–4.3). Both authors contributed to the ethical aspects (§ 2.5), conclusions (§ 5), critical revision, and approval of the final version.

the world, interprets experience, and constructs their identity (Merleau-Ponty, 2003; Naccari, 2006, 2012). Learning is therefore understood as meaning-making grounded in the intertwining of perception, emotion, imagination, and relationship.

Experience activated through movement can perform a mediating function between subject and world, becoming a space in which individuals may perceive themselves and explore meanings that are not fully accessible through conceptual elaboration alone (Damiano, 1993; Naccari, 2008, 2011). In bodily mediation workshops, motor exploration is followed by activities aimed at integrating and reworking lived experience: writing, verbalisation, and sharing make it possible to name what has been experienced, become more aware of it, and relate it to one's personal history.

Autobiographical narration proposed after bodily and expressive experience may represent a formative device through which the subject interprets their own pathway and constructs continuity between past, present, and future possibilities (Cambi, 2005; Demetrio, 1996). Memories, expectations, and desires may also emerge from lived experience in movement. In professional training, this strategy may help make explicit the relationship between personal history, representations of education, and developing identity.

This framework gave rise to the international project *Autobiographical narration and motricity in future educators' training*, promoted by Italian and Brazilian universities. The project was conceived by Alba G. A. Naccari and Fernando Donizete Alves (UFSCar, Brazil) and later involved university faculty members and researchers in Italy and Brazil.

The protocol comprises eight sessions, each centred on a generative theme and organised according to a recurring sequence: playful motor experience, writing about present lived experience, autobiographical recall, dialogic sharing, and pedagogical debriefing.

This article concerns the first Italian implementation, carried out in Perugia with students enrolled in degree programmes in Sport and Exercise Sciences.

2. Materials and Methods

2.1 Design

This study is situated within the growing, yet still theoretically and methodologically heterogeneous, field of empirical research on embodied teaching and learning in higher education, in which teacher education is one of the most frequently investigated areas (Hegna & Ørbæk, 2024).

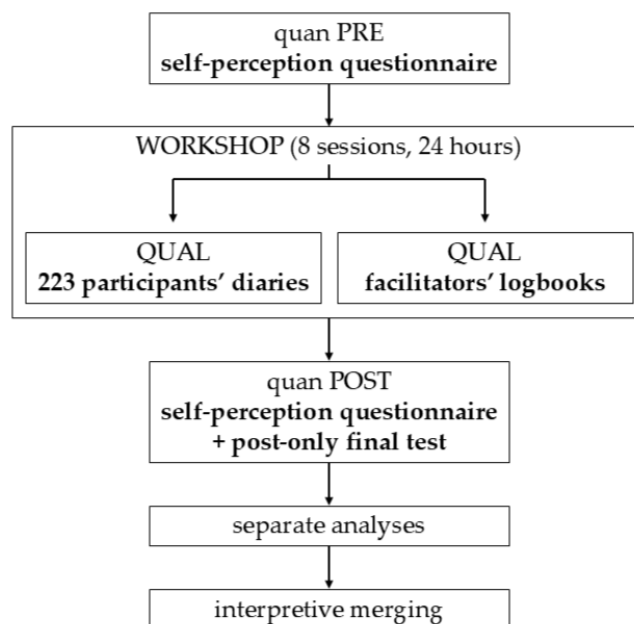
The study explores changes in self-perceptions, final performance on course content, and the meanings attributed to bodily, autobiographical, and relational experience. Its aim is not to establish the causal effectiveness of the protocol, but to understand how it was experienced and interpreted, and how participants connected personal experience with their future educational professionalism.

A qualitatively driven convergent mixed methods design was adopted, with partially concurrent data collection across the training programme (Creswell & Plano Clark, 2025). The qualitative component included participants' repeated experience diaries and facilitators' logbooks; the quantitative component included a pre-post self-perception questionnaire and a post-only knowledge test.

The components were analysed separately and then integrated at the interpretation stage through merging (Fetters et al., 2013), with the aims of examining com-

plementarity, expansion, convergence, and divergence across sources (Greene et al., 1989).

Figure 1. Timeline and integration logic of the mixed methods design



Note. The qualitative component had interpretive priority; quantitative data served a descriptive and exploratory function.

The study was guided by the following research questions:

1. What variations can be observed in self-perceptions between the beginning and the end of the programme, and what level of response do participants show in the final test?
2. What meanings and participation dynamics emerge from participants' diaries and facilitators' logbooks?
3. How do quantitative and qualitative findings converge, complement one another, or diverge?

2.2 Participants and protocol

The workshop was conducted in Perugia between November 2025 and January 2026 as part of an optional teaching activity attended by 32 students enrolled in degree programmes in Sport and Exercise Sciences.

Based on the initial questionnaire, the group was predominantly male (23; 71.9%); nine participants were women (28.1%). Most participants were aged between 20 and 25 years (26; 81.3%); five were aged between 26 and 30, and one between 31 and 35. Seven participants were enrolled in the bachelor's degree programme L-22, while 25 were enrolled in master's degree programmes (LM-67, N = 24; LM-68, N = 1).

The workshop was conducted by Alba Naccari, assisted by three trainees enrolled in the Master's programme in Pedagogy of Corporeality and Dance Movement

Therapy offered by Eurinome ASD in Perugia (Maria Bazzoli, Patrizia Semperboni, Sara Fernandez Perfetti).

The programme pursued several main training aims: to deepen participants' self-awareness as educators, to improve their knowledge of the pedagogical potential of movement, and to introduce bodily mediation activities that, with appropriate adaptations, may be used in playful-motor educational contexts with children.

The programme comprised eight three-hour sessions, for a total of 24 hours. Each session was organised around a generative theme, understood here in an adapted pedagogical sense inspired by Freire: an experiential core capable of orienting movement-based activities, autobiographical reflection, and subsequent group discussion. The generative themes were: motor competence development; symbolic play; children's literature and imagination; relationships and sociability; emotional channelling; the need for adequacy and self-acceptance; outdoor play; and sensitivity to beauty and wonder.

Each session followed a recurring sequence:

- 1. a playful motor activity centred on the session theme, lasting approximately one hour;
- 2. individual writing in the experience diary, including:
 - a. a description of the sensations, perceptions, emotions, and images that emerged during the activity;
 - b. the recall of autobiographical experiences connected with the theme;
- 3. sharing and collective reflection, carried out either in the whole group or in sub-groups;
- 4. pedagogical debriefing led by the lead facilitator, aimed at connecting the lived experience with theoretical concepts and possible educational implications.

The setting was regulated by principles of non-judgement, confidentiality, and respect for different modes of participation.

2.3 Data sources

Thirty-two participants contributed to the qualitative corpus, which consisted of individual diaries completed during the sessions and semi-structured facilitators' logbooks. The corpus of participants' diaries included 223 valid entries, corresponding to the sessions actually attended. Each entry included responses to two prompts:

- a) "Present: The theme addressed generated in me the following sensations, emotions, images";
- b) "Past: The theme addressed reminded me of the following episode, or episodes, from when I was a child".

The logbooks integrated the different observational perspectives of the lead facilitator and the three trainee facilitators. They focused on a set of common indicators agreed upon by the research team, including engagement with the proposed tasks, demonstrated motivation, distinctive movements, actions, or bodily forms that emerged, and significant concluding verbalizations; each generative theme also included specific indicators.

Complete paired data from the pre-post questionnaire and the final test were available for 28 participants. The pre-post questionnaire included 16 items on a five-point Likert scale. For each of the eight generative themes, one item concerned perceived personal awareness and one concerned perceived competence in future educational action.

The post-only final test included 21 multiple-choice questions on the theoretical and pedagogical content addressed.

2.4 Analysis

Differences in the 16 pre-post items were examined using a two-tailed Wilcoxon signed-rank test, with sequential Holm correction and rank-biserial correlation as the effect-size measure. An exploratory aggregate index obtained by summing the 16 items was also analysed. Although the instrument had been reviewed by experts within the project group, it had not undergone independent psychometric validation; scores were therefore interpreted as exploratory indicators of self-perception. Holm correction was adopted to control the inflation of Type I error due to multiple comparisons. Tests were run in Jamovi 2.6.44.0; Holm correction was applied manually.

The final test was analysed descriptively.

The 223 diary entries were analysed using Reflexive Thematic Analysis (Braun & Clarke, 2006, 2023). Coding was mainly inductive, while informed by the embodied and autobiographical framework, and addressed both present lived experiences and recollections. The analysis focused on the sensory, affective, and reflective quality of the connections, rather than on the mere presence of autobiographical recall. The process included familiarisation, coding, theme development, review, and definition, also considering ambivalent or non-conforming cases. The final themes do not coincide with the generative themes of the sessions, but represent cross-cutting configurations of meaning reconstructed from the entire corpus.

The facilitators' logbooks were examined through a descriptive-interpretive reading based on the indicators included in the instrument.

Quantitative and qualitative findings were then integrated through a joint display, distinguishing convergence, complementarity, divergence, and expansion (Guetterman et al., 2015).

2.5 Ethical aspects

Participants signed informed consent for data collection, processing, and scientific use. Questionnaires and diaries were associated with codes before analysis; the excerpts reported were pseudonymised and stripped of potentially identifying information.

3. Results

3.1 Quantitative results

3.1.1 Pre-post questionnaire

After Holm correction, the following variations remained significant: perceived body schema, from 4.04 to 4.57 ($p_{\text{Holm}} = .036$); the educational value of symbolic play, from 4.11 to 4.57 ($p_{\text{Holm}} = .028$); perceived ability to interpret roles and characters, from 3.25 to 4.07 ($p_{\text{Holm}} \leq .016$); the educational value of stories and fairy tales, from 3.39 to 4.43 ($p_{\text{Holm}} \leq .016$); and the ability to experience wonder and amazement, from 4.00 to 4.54 ($p_{\text{Holm}} = .028$).

The exploratory aggregate index increased from 62.00 to 68.89, $W = 3.50$, $p < .001$, with a high rank-biserial correlation, $|r_{\text{rb}}| = .981$. No significant variations emerged in managing one's emotions or in accepting bodily uniqueness.

3.1.2 Final test

In the final test, the mean score was 17.32 out of 21, corresponding to 82.5% correct answers; scores ranged from 11 to 20, and 75% of participants provided more than 16 correct answers.

Percentages above 90% were observed for the items concerning motricity as a foundation for cognitive development, the formative value of fairy tales, aesthetic catharsis, the need for competence, and geodance. Greater variability emerged for the items concerning the maturation of basic motor patterns, the relationship between symbolic play and cognitive-linguistic development, dialogic attitude, and the role of imagination in adulthood.

3.2 Qualitative results

3.2.1 Facilitators' logbooks

The facilitators' logbooks document a progressive evolution in participation. At the beginning of the programme, some participants, particularly male students, showed difficulty engaging in non-competitive, expressive, and introspective movement activities, displaying hesitation, embarrassment, defensive laughter, or side conversations. Others, however, appeared to grasp the depth of the experience from the outset, showing concentration and motivation. Over the course of the sessions, embarrassment gradually decreased, and even the more creative activities were approached with greater attention and commitment.

At the level of movement, during free explorations of space, participants often tended to position themselves in a circle, a form that seemed to provide safety and reduce the difficulty of individual exploration. Group activities were generally more accessible and appreciated, as they fostered a sense of safety, mediated comparison with others, and supported emotional sharing. Over time, the facilitators observed more varied, complex, and articulated involvement of body segments and spatial levels.

Verbalizations also followed a progressive pattern. In the first sessions, students showed reluctance to speak and, despite work in subgroups guided by the facilitators, it was often necessary to invite them to speak by name. Later, some participants became more willing to talk about themselves and, in some cases, spontaneous and more personal contributions emerged, although individual differences remained.

3.2.2 Participants' diaries

Reflexive Thematic Analysis of the participants' diaries generated four themes.

1. From the present body to autobiographical resonance

Participants connected the sensations experienced during the activities with episodes from their bodily, playful, family, and relational histories. Memories were used to reinterpret experiences of competence, freedom, belonging, judgement, and vulnerability.

«I remembered the day I started playing volleyball. I did not know what to expect, but as soon as I entered the gym I felt something special: a warmth, an energy that immediately made me feel at home» (P22).

2. Exposing oneself and relying on others: the group between embarrassment and trust

Participation emerged as a negotiated process. For many participants, initial embarrassment diminished through increasing familiarity with partners and with the group; for others, distance or selective involvement remained.

«After gaining a little confidence, the initial shyness and slight embarrassment gave way to enjoyment and [...] harmony and cooperation» (P26).

3. Movement as a resource for regulation and competence

Sport, dance, breathing, running, music, and outdoor activities were represented as resources for modulating anxiety, anger, tension, or energy, and for recovering calm and a sense of efficacy. However, the diaries also revealed difficulties and ambivalences.

«During the group activity I felt at ease and was able to let out the anxiety I had» (P20).

4. Sensory imagination and aesthetic openness

In the sessions devoted to literature, nature, and beauty, experiences of wonder, calm, imaginative immersion, and creative freedom emerged, sometimes accompanied by nostalgia or by difficulty in generating mental images.

«I felt a sense of inner peace, imagining a place immersed in nature and being able to hear the sounds, the warmth of the sun, the ticking of the rain» (P11).

3.3 Integration

Integration (Table 1) was conducted to relate quantitative self-reported changes with qualitative findings from participants' experience diaries and facilitators' log-books, without assuming a point-by-point correspondence across sources.

Table 1. Synthetic joint display of selected dimensions from the integrated quantitative and qualitative findings.

Dimension	Quantitative findings	Qualitative findings	Integrated inference
Symbolic play, imagination, and narration	Significant increases after Holm correction in the educational value of symbolic play, role and character enactment, and the educational value of stories and fairy tales.	Role-taking, narrative creation, symbolic use of the body, and retrieval of fairy tales and childhood games; initial difficulties in letting go.	<i>Convergence and complementarity.</i> The sources indicate greater appreciation of imagination and narration, through non-uniform pathways of involvement.
Body awareness and autobiographical resonance	Significant increase in perceived body-schema awareness; autobiographical recall was not directly measured.	Affective and sensory connections between present experience and memories of play, sport, relationships, competence, judgement, and belonging.	<i>Complementarity and expansion.</i> The qualitative component shows how body awareness became connected with the interpretation of personal history.

Dimension	Quantitative findings	Qualitative findings	Integrated inference
Group, exposure, and trust	Increases in the items “constructive and respectful relationship” and “educating for positive relationships”, not significant after Holm correction.	Frequent transition from embarrassment to greater trust and participation through partners, the group, and the non-judgemental climate, with persistent resistance in some cases.	<i>Partial complementarity and qualitative expansion.</i> Qualitative data document a function of the group that was not directly measured by the questionnaire. The items captured general relational self-perceptions.
Emotional regulation, competence, and self-acceptance	No significant variation after Holm correction in emotional management or body acceptance.	Movement-based activities were described as resources for regulation and competence; coexistence of safety, vulnerability, and ambivalence.	<i>Divergence and complexification.</i> The presence of narrated strategies does not coincide with a global increase in perceived emotional regulation or bodily self-acceptance.
Sensory imagination and aesthetic openness	Significant increase in the ability to experience wonder and amazement; positive variations in the other aesthetic items, although no longer significant after Holm correction.	Wonder, immersion, calm, nature, colours, and creative freedom, together with nostalgia and occasional difficulties in generating mental images.	<i>Selective convergence and complementarity.</i> The most robust finding concerns wonder; the diaries show its different sensory and affective tones.

Note. Quantitative data refer to 28 complete pre-post cases; the qualitative corpus comprises 223 diary entries from 32 participants, together with facilitators’ logbooks. Integration was conducted at the aggregate level rather than on a case-by-case basis.

The joint display highlights particularly clear convergence in the symbolic, imaginative, and aesthetic dimensions, whereas autobiographical resonance and the facilitating function of the group emerge mainly as qualitative expansions of the quantitative findings. The areas of emotional management and body acceptance instead return a more complex picture, in which the stability of self-perceptions coexists with narrated experiences of awareness, exposure, and ambivalence.

4. Discussion

Recent studies on embodied training for future teachers have examined content understanding, professional reflection, and awareness of experience, showing the importance of connecting embodied activity with reflective awareness, writing, observation or witnessing, and shared dialogue (among others, Ferreira & Ineson, 2025; Klein et al., 2019). The present study contributes to this line of research, but differs from previous work by integrating movement-based activities, autobiographical recall,

writing, sharing, and pedagogical debriefing within a single protocol examined through quantitative and qualitative data.

Overall, the results do not indicate a generalised change, but rather a circumscribed set of variations and meanings consistent with the activities proposed. The most robust quantitative variations concern dimensions directly addressed by the symbolic, narrative, and expressive activities; the qualitative findings show how these experiences were reworked through autobiographical resonance, exposure within the group, regulation strategies, and sensory imagination.

4.1 Body, autobiography, and professional reflexivity

The most distinctive qualitative result concerns the connection between present embodied experience and personal history. Since autobiographical recall was directly prompted, the finding does not demonstrate spontaneous memory activation. Rather, it documents how sensations and images were connected with childhood experiences, significant relationships, competence, belonging, and judgement.

Movement therefore seems to have provided perceptual and affective material that could be taken up through writing and pedagogical debriefing. Autobiographical decentring can be understood as a shift from the position of the remembered child or learner to that of the present young adult and future professional called upon to interpret needs, possibilities, and vulnerabilities across different moments of development. However, this process did not emerge with the same explicitness in all entries.

4.2 Group, regulation, and aesthetic experience

Bodily and expressive activities involved a form of exposure and personal engagement. The qualitative findings show that partners and the group frequently made activities initially perceived as unusual or embarrassing more practicable. The non-judgemental climate therefore appears not only as an initial rule of the setting, but as a condition progressively constructed and made practicable through interaction among participants and workshop facilitators. The persistence of discomfort or partial participation in some cases, however, prevents the description of a uniform trajectory.

Emotional regulation presents a more complex configuration. Participants represented movement as a resource for modulating tension, anxiety, and energy, but this narrative richness did not correspond to a significant variation in the global self-assessment of their own emotional management. Recognising strategies, becoming aware of lived experiences, and perceiving oneself as possessing a general competence are therefore not necessarily equivalent.

In the aesthetic area, the increase concerning wonder is reflected in narratives of sensory immersion, nature, calm, and imaginative freedom. The convergence is selective: the other items concerning nature and sensitivity to beauty did not remain significant after Holm correction. The diaries also show that aesthetic experience was not only calming, but also included nostalgia, melancholy, and occasional difficulties in generating mental images.

4.3 Integrated reading and study limitations

Integration suggests a plausible formative trajectory: embodied experience offers perceptual and emotional material; writing supports its autobiographical reworking; the group can facilitate exposure and sharing; pedagogical debriefing connects lived experience with future professionalism. Integration was not understood as a simple

check of correspondence across sources, but as a comparison among different levels of the formative experience: self-reported changes, narrated meanings, and processes documented in the facilitators' logbooks.

The study is limited by its single-group design, small and localised sample, project-specific questionnaire, post-only knowledge test, partial mismatch between quantitative and qualitative samples, and the involvement of one author in designing and conducting the workshop. The available data make it possible to describe changes in self-perceptions, responses to content, and meanings attributed to the experience, but not to demonstrate an increase in professional competencies. No follow-up is available.

5. Conclusions

The first Italian implementation of the protocol highlighted selective changes in self-perceptions, especially in bodily, symbolic, narrative, and aesthetic dimensions. The qualitative findings show that these dimensions were experienced through processes of autobiographical resonance, exposure within the group, regulation, and sensory imagination.

The most relevant result is not the indication of a uniform effect, but the possibility of connecting embodied experience, personal history, and educational reflection within the training of future education professionals. The protocol therefore represents a promising formative approach, to be further examined through comparative analysis of its implementations in Brazilian and Italian educational contexts, taking into account cultural specificities and the different ways in which autobiographical narration and bodily mediation intertwine in learning pathways.

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