

Spontaneous motor investment in the bio-psycho-social perspective: video modeling for an inclusive embodied training

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Abstract:

In a productive dialogue between pedagogy and neuroscience, this contribution places reflections around the themes of inclusion in a bio-psycho-social key and motor learning in an ecological dynamic perspective, in an epistemological and practical parallelism that enhances the complex, dynamic and non-linear nature of individual/environment interaction processes. The observation of spontaneous motor investment represents a valuable opportunity to understand movement initiatives and their underlying motivation, as well as to identify emerging competences, the starting point for designing meaningful movement and relationship experiences. This preliminary exploratory study involved the administration of an *ad hoc* structured questionnaire that systematises the advantages of video modelling found in the literature. With the aim of investigating the efficacy of video modelling as an experiential training tool for future support teachers, the survey involved 179 students attending the laboratories of Methods and didactics of motor-sports activities of university specialisation courses for support. The average values, always close to the maximum value, indicate the general tendency of the sample to identify in the mediated observation of motor and relational behaviour a strategy capable of enabling, in the process of observation/perception/simulation/action, an effective reading of the student's emerging competences and of directing interventions, in the field of motor activities, effectively placed in the zone of proximal development of each individual.

Keywords: inclusive physical education; video modeling; Embodied Cognition; Dynamic Ecological Approach; Bio-Psycho-Social approach



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1. Introduction

Over the past two decades, the inclusive paradigm has undergone a profound transformation, driven by reflections stemming from the introduction of the International Classification of Functioning, ICF (WHO, 2001) into educational settings. Far from being merely a tool for observation and inclusion, the Classification constitutes a true Copernican revolution in the understanding of disability. Disability is thus understood as the outcome of the interaction between an individual's personal characteristics and the contextual factors of the environment in which they live (WHO, 2001; 2007). Simultaneously, the field of motor learning has progressed significantly in a similar direction. Research in cognition, motor learning, and inclusion

reveals significant epistemological overlaps and educational implications, allowing theoretical and organizational principles to be translated across domains without loss of meaning (Minghelli et al., 2021; Minghelli & Coppola, 2023). Among all possible overlapping elements, one of them underlies it: the recognition of the embodied nature of experiences of cognition, motor learning and inclusion (Gomez Paloma, 2017). Embodied cognition research has long emphasized that individual-environment interactions involve a circular process of perception, action, and cognition, with this simultaneous activation also influencing the emotional dimension of experience (Thompson & Varela, 2001; Caruana & Borghi, 2016). This principle is central to contemporary reflections on learning - particularly motor learning - where all dimensions of the individual are meaningfully engaged and activated. The concept of simultaneity between perception and action (Gibson, 1979) thus underscores the central role of context in shaping learning outcomes.

The dynamic ecological perspective, when applied to motor activities, has led to significant reflections and implications in educational and didactic contexts. It requires consideration not only of the individual characteristics of the learner but also of the environmental and task-related factors (Newell, 1986; Davids et al., 2008). Furthermore, it conceptualizes the interaction between individual and environment as a continuous relationship between complex dynamic systems that co-evolve by influencing one another in real time (“online”) (Kugler et al., 1982; Niedenthal et al., 2005). In the field of inclusion, as well, the context has become central as an element that can significantly affect the individual’s possibilities to exercise his “activity” and his “participation” within a spatial and social context, shared and meaningful.

The dynamic ecological approach, developed within both motor and inclusive education domains, advocates for the creation of learning environments rich in variation and affordances (Gibson, 1979), and “open” in terms of the action possibilities they provide. Such environments are designed to promote meaningful movement experiences (Whitehead, 2013), engaging students across various modes of participation-physical, psychological, cognitive, and social. This perspective assumes as a common-sense horizon the pursuit of the principles of bio-psycho-social well-being and “self-determination” (Deci et al., 1996; Ryan & Deci, 2007; Sanli et al., 2013). This last construction, too, crosses the studies of both contexts, inclusive and motor, indicating in spontaneous initiatives and motivation the elite places of its promotion (Minghelli & Palumbo, 2024). Furthermore, in both declension contexts, the teacher is required to promote and consolidate patterns of action and interaction, attractors according to the theory of complex dynamic systems (Kelso, 1995), which can combine the skills learned, to encourage the exploration, “fluctuation” (towards), of new possibilities for motor investment and the structuring of new skills and competences. Non-linear pedagogy (Chow, 2013), which promotes the construction of representative movement environments to enhance perception-action coupling and functional variability, aligns closely with the principles of psychomotor practice in both educational and rehabilitative contexts. It emphasizes the psychosomatic unity of the individual as the foundational principle for engaging in meaningful movement experiences (Whitehead, 2013), beginning with the exploration of the student’s spontaneous initiatives (Digennaro, 2019).

In the light of these considerations, it is evident that the educational intervention, in a motor and inclusive field, does not take place in the only linear declination of explicit strategies, but feeds on a director’s capacity of the teacher, of “planning first”,

of “thinking for”. This requires a capacity for foresight and organization that acknowledges the subject’s spontaneous movement initiatives as expressions of personal interests and abilities—and thus, as signs of emerging competences (Gison et al., 2019). It involves recognizing and valuing these expressions through a sensitive process of attunement and synchronization, which becomes instrumental in shaping new and potential developmental pathways.

In a fruitful dialogue between pedagogy and neuroscience, this contribution puts the reflections around the themes of inclusion in bio-psycho-social key and motor learning in dynamic ecological perspective, in an epistemological and practical parallelism which values the complex, dynamic and non-linear nature of individual environmental interaction processes (Thompson & Varela, 2001). In the light of these considerations, according to the literature, the observation of spontaneous motor investment represents a valuable opportunity for understanding spontaneous initiatives and identifying emerging skills, Starting point for the design of significant movement and relationship experiences (Gison et al., 2019). From this perspective, the present study aims to evaluate the effectiveness of using video modeling as an experiential - and thus embodied - training tool in the preparation of future support teachers attending university specialization courses focused on methods and didactics of motor activities. On one hand, it seeks to foster the development of the ability to observe students’ bodily expressiveness as an indication of intentionality and personal “functioning” potential; and, on the other hand, to enhance awareness of how one’s own bodily actions influence the potential trajectories of disability development, always in relation to the surrounding environment.

2. Motor learning and inclusion: body observation between intentionality and environment

In the light of these considerations, teacher training can represent a privileged space to experiment with learning models that integrate body, environment and technologies into a systemic vision of learning (Gomez Paloma & Damiani, 2015; Minghelli, 2023). It is necessary to recognize in motor experience, for its nature incarnate, relational and multisensory, the vivid possibility of activating processes that are truly inclusive, where subjectivity is not adapted to a performance standard, but it becomes the pulsing centre of educational design. In this sense, training cannot be conceived solely as the product of abstract and conceptual elaboration; rather, it must also, recursively, acknowledge the generative role of concrete, lived experience. The paradigm of reciprocity between experience and learning - already established in phenomenological pedagogy (Dallari, 2000; Mortari, 2002) and in coherent, inseparable continuity with embodied cognition theories (Francesconi, 2011) - demonstrates transformative potential (Mezirow, 2003), both in educational and inclusive contexts. The integration of the perceptual dimension - rooted in phenomenological thought (Husserl, 1952; Merleau-Ponty, 1962) - with the motor dimension - of a pragmatic and ecological nature - offers a way to rethink the role of the body as the foundation of identity and of the educational and formative relationship. From this perspective, corporeality is not only a perceiving subject, but also a perceived one - capable of storing experiences in an embodied memory that co-evolves with the environment, constructing and interpreting pre-reflective and preverbal meanings (Gallese, 2003).

Within the framework of embodied cognition, the body is no longer merely an instrument or object of educational intervention - it becomes its central subject

(Gomez Paloma & Damiani, 2015), a living interface between inner and outer worlds, between self and other, between learning and being. In an age where knowledge risks being reduced to algorithmic and impersonal forms, it becomes urgent to reintroduce embodied experiential spaces into education - spaces where movement, emotion, interaction, and reflexivity (Schön, 1993; Korthagen & Vasalos, 2005) contribute to the construction of authentic learning. A kind of learning that - precisely because it is mediated through the body - can restore meaning, a sense of belonging, and real possibilities to every individual engaged in the educational experience. Studies resulting from the identification of mirror neurons (Rizzolatti et al., 1996; Gallese et al., 1996) help to fully understand the training potential of video modeling, which is a particularly useful strategy to support simulation processes and understanding of observed real situations (Gallese, 2014).

The identification of the neural areas underlying the embodied simulation capability is particularly useful for reflecting on how much even vision alone can enable the future teacher to observe and therefore perceive and act, albeit in a simulated manner, educational situations, selected in advance by the trainer. In this renewed perspective, body, mind, and emotions engage in a continuous, circular dialogue (Damasio, 1995), in which both direct and indirect experiences - triggered through simulation processes (Rizzolatti & Sinigaglia, 2006) - help guide future actions, functioning as “a kind of wisdom derived from the body” (Caruana & Borghi, 2016).

Scientific literature describes video modeling in training as a “pedagogical amplifier,” capable of enhancing activity observation and narrowing the gap between theory and practice (Impedovo, 2018; Colella & Vasciarelli, 2020), while also making the inherent complexity of real classroom contexts more tangible. From students’ spontaneous movement initiatives (such as functional motor activities, adaptive behaviours, and stable patterns of interaction), to the intentionality and emerging competences they reflect; from the strategies implemented by the teacher, to the dynamics of teacher-student interaction in processes of attunement and synchronization (including joint attention, mirrored gaze, and postural alignment) - video modeling aims to stimulate reflection on how both individuals within the relationship engage and function (Gomez Paloma & Minghelli, 2022).

Systematic observation practices, however, require the trainer to engage in a conscious and responsible mediating role (Damiano, 2013), to activate reflective processes (Schön, 1993) on lived situations - through both objective, synchronous and asynchronous analyses, applied globally as well as in a deconstructed manner to various observation targets. In line with these considerations, the literature on video modeling continues to highlight compelling areas of overlap between domains. As already pointed out, the observation contexts share elements of complexity and non-linearity by virtue of which it is not possible to define specifically the implementation phases of effective tools in a priori way and that, for this reason, recall for the activation of reflective practices aimed at identifying and recognizing in depth the causes responsible for the outcomes of all possible participations. Moreover, motor and inclusive interventions share a common denominator: the recognition of the centrality of the body - conceived both as “object” and “subject” within interpersonal relationships, as well as a key element in the interdependence between individual and environment, and more broadly, in inclusive motor learning processes. This recognition attributes equal value and significance to spontaneous movement initiatives, viewing them as expressions of functional capacities and motor skills that serve as

effective starting points for meaningful educational design, situated within everyone's zone of proximal development (Vygotskij, 1979). In addition, it is evident that on the one hand the training refers to both contexts of declination, referring to contents of cognitive and cognitive order, closely connected with reflections of practical-experiential order; on the other hand, the content of training is inextricably linked to information and body representations which require, far more than theoretical treatment, a capacity for in-depth understanding of the nature of the observed learning processes and relationships. The construction of the bodily-format representation describes well how a cognitive task can be called embodied when motor, sensory and affective information is exploited (Goldman, 2009; Caruana & Borghi, 2016). In this sense, the observed corporeality enables a deeper understanding, both quantitatively and qualitatively, of concepts and constructs that would otherwise be explored solely through an oral and theoretical approach. In the parallelism highlighted several times it is intended, here, to reflect on the use of video modeling in the training of future support teachers, to orient them "towards a deep knowledge and understanding of the subjective configurations of their pupils, emerging from the way in which strengths and weaknesses interact" (Aiello, 2015). Therefore, the aim is to centre the reflections on the elements of effective didactic corporeality of the teacher (Gomez Paloma, 2009; Sibilio, 2020), who is responsibly trained to acknowledge and recognize the importance of spontaneous movement initiatives as clear and tangible expressions of the student's will, subjectivity, competencies, and functional possibilities.

3. Materials and Methods

3.1 Aim

Considering the above considerations, the objective of this study is to explore, through a survey conducted with a sample of 179 students - trainers in methods and teaching of motor and sports activities enrolled in educational and didactic support courses - their perceptions and opinions regarding the benefits of using video modeling in educational contexts. Specifically, this study aims to determine whether the use of inclusive video modeling in teacher training has helped educators: 1) develop a greater awareness of how their bodily actions influence the potential evolution of disability; and 2) enhance their observation skills of spontaneous motor investment, to recognize elements of intentionality and functioning possibilities as fundamental principles for self-determination.

3.2 Sample

The study utilized a convenience sample of 179 students enrolled in Specialization courses for support (M=12; F=167). The personal data section gathered information on previous training, apprenticeship, and traineeship experience, with the sample distribution as follows.

Regarding prior training, respondents could indicate more than one qualification or course, so percentages are not mutually exclusive. Specifically, 14% of participants hold only a Higher Secondary School Certificate as their entry qualification, while 44% possess at least a bachelor's degree. Additionally, 10.1% of participants reported having received prior training in support at other institutions (tab.1).

Concerning work experience, 47% of the sample consists of individuals with minimal (less than one year: 19.1%) or no work experience (27.9%). The remaining

53% have more than one year of work experience (2 to 5 years: 30.7%; 6 to 10 years: 12.3%; 10 to 15 years: 1.7%) (tab.2).

In terms of teaching experience, more than half of the sample (53.6%) reported having no prior teaching experience, while the remaining 46.4% had direct experience in teaching support (tab. 3).

Regarding the status of direct training, almost all participants (96.1%) are currently undergoing direct training, while a small percentage (2.8%) have already completed it. Only 1.1% of the sample have yet to begin their traineeship.

Table 1. Type of training

Type of training	N	%
High school diploma	104	58.1%
Humanities degree (Pedagogy, Psychology, etc.)	40	22.3%
Social Sciences degree (Sociology, Political Sc., etc.)	16	8.9%
Other Humanities degree (Humanities, Philosophy, etc.)	13	7.3%
Scientific degree	7	3.9%
Health degree	3	1.7%
Specialisation support	18	10.1%
Other training in education	6	3.4%

Table 2. Experts/Inexperienced of school

Experts/Inexperienced of school		N	%
Valid	Inexp_school	84	46,9
	Exp_school	95	53,1
	Tot	179	100,0

Table 3. Experts/Inexperienced of learning support

Exp_inexp_Support		N	%
Valid	Inexp_support	96	53,6
	Expert_support	83	46,4
	Total	179	100,0

3.3 Tools

The exploratory survey utilized a self-administered, structured ad hoc questionnaire, developed based on prior research involving a larger sample, conducted within the laboratories of the Specialization Courses for Teaching Support. The operational definition of the analysed variables was informed by the advantages of video modeling identified in the literature. All variables were assessed through a closed-ended question battery. The revised version of the questionnaire introduced seven additional items designed to explore the dimensions of spontaneous motor initiatives, teacher-led tuning and synchronization processes, and the observation of emerging skills—key elements for identifying the proximal development zone of each participant. The questionnaire consists of two sections: Section A gathers personal data and general information regarding participants' training, work, and traineeship experiences. Section B (I.1-19) focuses on the quantitative analysis of participants' perceptions of the benefits gained from experiential practical activities incorporating video modeling (Tab. 4).

4. Results

Total sample

The results were analysed in a SPSS environment. For each item, the mean and standard deviation were calculated. Respondents were asked to express their views on the perceived benefits of video modelling activities during the workshops. Each respondent indicated, in relation to the items, their degree of agreement on a Cantril scale from 1 to 6, where 1 indicated the degree of total disagreement and 6 the degree of total agreement. Table No. 4 shows the descriptive statistics of the items studied.

In general, with reference to the opinions of the total sample, the one-way analysis always returns values of the averages very close to the maximum value (6) for each item, ranging between 5,36 and 5,67, with DS always relatively low to indicate a good degree of agreement between the perceptions expressed by the suspects.

Specifically, the items with the highest average scores are: I.19, which pertains to the effectiveness of the tuning process in promoting the “functioning” of the student ($M = 5.67$; $SD = 0.60$); I.4, which concerns the acquisition of skills for understanding complex real-world contexts ($M = 5.66$; $SD = 0.61$); I.2, which relates to understanding the intentions underlying the strategies observed ($M = 5.65$; $SD = 0.62$); and I.10, which refers to improving the perception of the potential of inclusive interventions ($M = 5.64$; $SD = 0.70$).

The items with lower scores and slightly higher standard deviations are I.5 ($M = 5.36$; $SD = 0.99$), which addresses the ability of video modeling to bridge the gap between theory and practice, and I.6 ($M = 5.37$; $SD = 0.86$), which concerns the simplification of complexity through video observation.

Table 4. Descriptive Statistics - Total Sample

<i>In your opinion, the practical activities of video-mediated observation and discussion of the student at school enabled you to:</i>	N	M	DS
<i>1. put yourself in the student's shoes (i.e., understand their interest by observing posture, tone, gaze, etc.)</i>		5,54	,78
<i>2. put yourself in the teacher's shoes, providing ideas for classroom action (i.e., better understand the intentions behind the observed teaching strategies)</i>		5,65	,62
<i>3. develop or refine the ability to grasp the student's intentions (i.e., better understand the meaning of their spontaneous initiatives)</i>		5,59	,66
<i>4. improve your ability to objectively observe the student in a complex real-world context</i>		5,66	,61
<i>5. bridge the gap between theory and practice</i>		5,36	,99
<i>6. simplify classroom complexity through context analysis</i>		5,37	,86
<i>7. acquire or refine strategic and procedural knowledge through observation of teaching interactions</i>		5,55	,74
<i>8. activate reasoning about future teaching strategies</i>		5,63	,74
<i>9. understand the "implicit" aspects underlying certain actions of the student or teacher (gestures, looks, nonverbal communication, time/space organization)</i>		5,59	,66
<i>10. observe real situations of effective inclusion, improving your perception of the potential of inclusive educational interventions</i>		5,64	,70
<i>11. better understand the influence of corporeality on the educational intervention (posture, proximity, spatial organization)</i>		5,55	,80
<i>12. develop or refine the ability to plan within the student's zone of proximal development</i>		5,60	,67
<i>13. more strongly consider the student's functioning potential, starting from their spontaneous initiatives</i>		5,63	,63
<i>14. observe the student's motor behavior (both static and dynamic)</i>		5,63	,65
<i>15. understand how "variations" introduced into the context (spatial/temporal) indirectly influence modes of interaction and action</i>		5,58	,66
<i>16. reflect on postural adjustments to adopt in the relationship with the student</i>		5,56	,71
<i>17. reflect on the modalities of teacher/student synchronization</i>		5,63	,66
<i>18. reflect on how recognizing/attributing meaning to the student's spontaneous initiatives positively influences the inclusive relationship</i>		5,63	,65
<i>19. reflect on how sharing the joy of spontaneous initiatives (synchronization) positively affects the student's "functioning"</i>		5,67	,60

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Effectiveness of video modeling and experience in school

In order to understand how the sample was distributed according to previous teaching experience, a one-way ANOVA was carried out to assess the statistical significance of the differences found between the two groups: (i.e., those who report more than one year of experience at school on common place) and inexperienced teachers (with less than one year of experience or with no experience). In general, both groups reported medium-to-high scores across all items, suggesting an overall positive perception of the experience of observing the classroom context in an educational setting. However, a statistically significant difference was found for Item I.9, which concerns the effectiveness of video modeling in capturing elements of the

student-teacher relationship at the intra-corporeal level. For this item, the experienced teachers reported a higher mean score of 5.71, compared to inexperienced teachers ($M=5.48$; $p\text{-value}=0.021$). While not statistically significant, certain trends warrant attention: in particular, inexperienced teachers reported slightly higher values for items related to activating reasoning about educational strategies through observation (I.7; I.8), whereas experienced teachers tended to rate higher for items concerning the interpretation of educational actions and the dimensions of corporeality and implicit communication (I.9; I.11; I.19).

Effectiveness of video modeling and experience in inclusive field

Similarly, a further one-way ANOVA was conducted to investigate differences in the perceived effectiveness of the benefits of video modeling, in relation to experience gained in years of teaching on educational support. As described in the sample description, 53.6% of the total sample reported no teaching experience on teaching support (Tab. 3). The comparison shows a general tendency of the less experienced to assign slightly higher values for each item investigated by the questionnaire. Again, in relation to I.9, which concerns the understanding of the implications of the inter-body student/teacher relationship, there is a statistically significant difference between the expert group on educational support and the hope, this time with a reverse trend. Whereas previously the experts' group reported higher values for this specific item, in this case the inexperienced on Teaching Support report an average of 5.69 higher than the experts ($M=5.48$; $p\text{-value}=.039$).

5. Discussion

Total sample

The average scores consistently above $M=5.5$, except for Items 5 and 6, suggest that participants perceive video modeling as an effective tool in training contexts, thus supporting the study's objectives. The total sample recognizes video modeling as a highly effective training tool, particularly for promoting the acquisition of skills in systematic observation (Impedovo, 2018). (I.4), motor behaviour analysis (I.14), and inclusive educational design (van Es, 2009). (I.7). This technological tool, in conjunction with the trainer's expertise, provides trainees with the opportunity to directly experience and visualize the outcomes of real-world situations, including effective interactions (I.10), while also enabling them to make informed assumptions and predictions for future educational designs, appropriately placed within the proximal development zone (I.8; I.12).

These results reinforce the potential of video modeling as an embodied training tool, where the observation of both one's own and others' body movements can stimulate learning processes and reflection through mechanisms of embodied simulation. By attributing spatial dimensions to empathy and conceptualizing it as a form of "out-of-body experience" (Berthoz, 2004), which enables the subject to transcend their own body and inhabit the perspective of another (Gomez Paloma & Minghelli, 2022), the observation of the expert teacher facilitates the assumption of another's point of view. This enables a deeper understanding of the intentions underlying the other's behaviour and its significance (I.1; I.2; I.3; I.9). As noted, "Whenever we see what happens to others, we not only understand what they experience, but also often empathically share their states..." (Keysers & Gazzola, 2009).

Furthermore, the video, supported by the trainer's mediation, seems to support the teacher's ability to reflect on the processes of tuning (I.19) and synchronizing (I.17) between pupil and teacher and attributing meaning to spontaneous initiatives (I.18).

In the specific context of disability and motor activities, students highlighted how video modeling promotes the recognition and enhancement of spontaneous initiatives of the individual and its possibilities for functioning (I.13) which often occur mainly at the body-motor level (I.14). Logically, the use of video seems to Favor the recognition of the role that the contextual variables (I.15) and the didactic corporeity of the teacher (Gomez Paloma, 2009; Sibilio, 2017) have in influencing the outcomes of the individual's functioning (I.11; I.16).

The strong focus on objective observation within real contexts (I.4) highlights a growing awareness of the complexity of educational settings, where corporeality cannot be separated from relational, spatial, and temporal dynamics. In this regard, the slightly lower average scores observed for Items 5 and 6 may be attributed to the increased caution gained from using video modeling, as well as from the discussions held at the end of each workshop. These discussions helped teachers engage with the real complexities (Goldman, 2009) inherent in inclusive classroom settings and better appreciate their dynamic and unpredictable nature.

Effectiveness of video modeling and experience in school

In relation to the comparison of averages between experienced and novice teachers, the differences between the groups suggest that experienced educators are more attuned to and therefore more sensitive to the implicit and non-verbal aspects of the inclusive educational relationship (such as gestures, eye contact, and the temporal-spatial organization). The significant difference found for item 9 indicates that these reflections on the implicit dimensions of the classroom can be attributed to the specific skills acquired by experienced teachers during their time in the field, which enhance their pedagogical intuition and the agency of the teacher. This agency is understood not merely as a function of the teacher's morphological and functional characteristics, but as modes of action that are intentionally directed towards educational goals (Sibilio, 2017). Conversely, less experienced teachers appear to be more sensitive to the benefits of observation in identifying and reflecting on inclusive strategies. In this regard, video modeling serves as a useful tool to bridge the gap between theory and practice (Seidel et al., 2013).

Effectiveness of video modeling and experience in inclusive field

The comparison of averages in relation to experience with teaching support reveals a more homogeneous distribution of values, showing a general tendency for the group of inexperienced teachers to assign slightly higher values across almost all dimensions investigated. This data suggests that the inexperienced teachers demonstrate a higher sensitivity to the observational experience. In contrast, experienced teachers provide more homogeneous and slightly lower ratings, likely due to their ability to filter experiences through established skills. For experts, observation may serve more as a moment of validation or "focusing" on aspects they already intuitively understand. The reverse trend observed for item 9, which concerns the understanding of the implicit dimensions of the student/teacher inter-body relationship, suggests that in-

experienced teachers on support perceive a greater benefit from direct observation, enabling them to grasp implicit and non-verbal aspects of educational interaction. It can be assumed that those without sufficient direct experience in inclusive relationships find observation a valuable opportunity to “sensitize their gaze” to aspects of the relationship that are typically overlooked but are crucial to the interaction. Nevertheless, the lack of significant differences between groups for most items suggests that observational experience is seen as a useful and formative tool across the board, regardless of previous experience in support.

Conversely, the inexperienced in support are confronted, even in reflective practices, with the consideration of implicit aspects of the relationship that, until now, they have not had the opportunity to explore or experience directly in the context of disability or special educational needs. For these individuals, reflecting on the implicit aspects of student-teacher communication serves as significant support in understanding the functioning of the subject. The data suggests that the perceived value of the “implicit” depends not only on the experience itself but also on the type of experience: generic teaching experience versus specific support experience. This shift in the behaviour of school experts and support teaching experts in relation to their sensitivities toward the implicit dimensions underlying the inter-corporeal relationship highlights the fact that a deep understanding of inclusive interaction has an embodied nature, rooted in experience. It also carries an embedded nature, referring to the dynamics of those experiences, as well as an enabling nature, where the acquisition of one competence facilitates the development of additional areas of interest, skills, and knowledge. This insight appears to be another important and suggestive overlap, influencing both reflections on motor learning (Adolph & Hoch, 2019), the context in which it occurs, and the training experiences themselves.

6. Conclusions

The results of the survey seem to confirm the effectiveness of video modeling as a training device capable of integrating perceptive, motor, and reflective dimensions within an embodied approach applied to learning and training. The average values, consistently close to the maximum, suggest that the sample generally identifies mediated observation of motor and relational behaviour as a strategy that enhances meta reflexive skills and encourages the acquisition of analytical tools for interpreting the implicit dynamics of the educational relationship.

The differences found between groups, based on previous experience in both curricular teaching and support roles, seem to underscore the embodied nature of agency and the teacher’s intentions. In video modeling, the body, in its dual role as both subject and object of interaction, emerges as a central epistemological hub, crucial for both the training experience and inclusive educational design. It facilitates a perceptive/simulative/action-based process of observation, enabling an effective interpretation of students’ emerging skills and guiding interventions within the context of motor activities, appropriately situated in each student’s proximal development zone. Despite these encouraging results, the study’s limitations lie in its relatively small sample size and the challenge of identifying a validated survey tool that could frame the study’s objectives from a longitudinal perspective, aiming to measure the

long-term outcomes of training on the actual inclusive competencies developed by teachers.

Therefore, the next phase of this research will explore the possibility of integrating video feedback into the research design through a follow-up that involves teachers trained via video modeling. However, the analysis of the quantitative data, together with the qualitative insights collected (which were not discussed here) and the final discussions at the end of each integrated training workshop, suggest that it is essential to continue investigating the effectiveness of training tools that convey, with and through the body, contents, values, and meanings that cannot be translated through any linguistic statement.

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