Chapter

Perspective Chapter: Inclusive Ethics as a Key Competence for Teachers in the Embodied Cognition Perspective

Paola Damiani, Davide Brancato and Filippo Gomez Paloma

Abstract

The chapter explores a central theme for future world education: ethics as the essence and necessity of teacher education in the perspective of long-life learning. Particularly, the assumption of the idea of ethics as a scientific, natural, and humanistic dimension, as well as a valuable and political one, is consistent with the embodied cognition approach and the "embodied-based" training models aimed at the development of life—soft skills. In this sense, it is possible to identify the construct of ethical competence as an essential competence underpinning inclusive professionals and teachers in primes. A priority objective is, therefore, to provide a scientific definition of ethical competence and to operationalize it through the implementation of embodied cognition-based approaches and strategies. In addition to the definition of the theoretical framework, the chapter will also present the findings of a preliminary survey examining various dimensions of ethical competence among teachers in training at specialization courses for support activities in four Italian universities, aimed at designing training courses for their development and implementation.

Keywords: ethic, ethical competence, inclusive education, teachers' training, embodied cognition, intersubjectivity, sense of justice

1. Introduction

The challenges of globalization are inherently ethical and political in nature. Equity is a moral principle, but it is also a principle of strategic rationality for the "good functioning" of professionals and contexts [1].

The issues of ethics, morality, equity, and inclusion have been variously investigated and universally recognized as a priority for the sustainable development of current and future society [2]; however, at both conceptual and application levels, significant gaps and critical issues are present.

From a formal point of view, the "necessity of ethics" is interpreted and declined from different angles and all of them highlight the close interconnection of ethics with the abovementioned concepts. In the educational and care professions, the ethical issue, when addressed, is predominantly associated with the topic of professional profile and code of ethics; however, even for professions for which ethical competence has long been codified as an essential aspect of the profile, as in the case of nurses, and a *condictio sine qua non*e of nursing practice, there is no consensus in the literature on its definition [3].

As far as teachers are concerned, the need for a specific code of ethics becomes evident in an era of great social and technological change [4] and of new and increasingly complex educational challenges [5, 6]. Unfortunately, this awareness does not seem to be present in a systematic and operational way in all countries. "Despite efforts to recruit and retain enough skilled VET (Vocational Education and Training) teachers, challenges persist. Many OECD (Organization of Economic Cooperation and Development) countries have significant VET teacher shortages, partially due to the limited attractiveness of the profession (…). Digitalization, automation, and the transition to greener economies affect the skills needed in the labor market, and therefore also the skills required from VET (Vocational Education and Training) teachers and trainers. In this context, VET teachers need to keep abreast of changes to be able to teach and train their students effectively [7]. The in-service training of teachers needs to be adjusted to those new requirements by including the necessary technical and pedagogical competencies" [6]. Particularly, the global challenge concerns the need to improve the quality of schools starting from the quality of their teachers, through co-development (people and contexts) in the inclusive direction [2].

A unique situation is the Italian one, for which, in the face of a recognized tradition of avant-garde in the field of integration and school inclusion; unlike many other European and world realities, no real code of ethics for teachers has ever been issued by the Ministry of Education. This is an anomaly that contrasts with the high degree of professionalism and competence required of an indispensable function, such as that of the teacher [4]. In fact, despite the absence of an institutional document, there are numerous bodies (local, public, and private entities, teachers', and managers' associations), studies, and experiences that affirm the centrality of ethics as a value and as a compass to guarantee the quality of schools, teachers, and inclusive education.

As highlighted by UNESCO's IIEP (International Institute for Educational Planning),[1] codes are being developed in an increasing number of countries either by an autonomous body, as in Hong Kong, or by teacher organizations themselves, as in the province of Ontario in Canada. Research has shown that teacher codes can be an effective instrument for promoting ethics in education [8].

This is a process initiated in the last two decades that testifies to the growing attention to the more complex and deeper dimensions, often of an implicit nature, that contribute to the development of global competencies—technical and personal—[9], which are closely related to the ethical, empathic, and inclusive behavior and attitudes of teachers [10−14]. Indeed, "plans for improving the quality of education often focus on quantitative data such as learning time, class size, physical infrastructure and facilities, teaching and learning materials and qualification of teachers, rather than

---

[1] IIEP Unesco - Etico | Platform on ethics and corruption in education.

on "intangible inputs,", such as the commitment of teachers and other staff to their profession, their capacity to help every pupil reach his or her potential, and their ethical and professional behavior and responsible judgment. Such factors are nevertheless critical in providing quality education for all, as well as fostering universal values such as honesty, integrity, and citizenship. To increase the professionalization of teachers and other staff, countries have developed professional codes of conduct in the education sector, in addition to the general statutory rules in force for all members of the public service [2]. These codes are considered as a cornerstone of quality teaching and work toward excellence in education in several ways: "by building better teaching and learning environments, they can improve the quality of classroom teaching-learning interaction, while helping curb misconduct; by promoting ethics, they can make sure that common values are shared by all citizens. In most countries, such codes exist in one form or another; as a clearly formulated code, a set of regulatory texts, laws, regulations, statutes, directives, implicit rules, and so on. In some others, they still need to be introduced at the national level (or at regional or provincial levels, in the case of federal systems)" [2] (Ib.).

However, their implementation sometimes proves difficult due to—among other variables—limited access, unclear content, and inadequate teacher training, as shown in IIEP's research in Canada and South Asia [8]. Research shows that even in countries where there is a code of ethics for teachers, their impact is sometimes questionable due to a variety of factors such as limited access to the code or lack of awareness of its existence, difficulties in understanding it, inadequate education for teachers, lack of capacity for its enforcement, a lack of knowledge about procedures for lodging complaints, etc. [15]. In 2009, the IIEP developed guidelines describing all stages of code development. Specifically, the guidelines have been prepared to guide countries on how to successfully design a code (or review an existing code); make it into a functional tool that will contribute effectively to the regulation of staff (and more specifically, teachers' conduct at school level); and help countries put in place the appropriate mechanisms to ensure the proper dissemination, application, and monitoring of the code at all levels of the system (including its integration into teachers' education and professional development).²

What emerges is a general difficulty, a gap between what is stated in the documents and the behavior and attitudes implemented by professionals, in terms of ethical, empathic, and inclusive capacities and their impact on the context. In this scenario, albeit dynamic and varied, the recognition of the "necessity of ethics" for teachers is reaffirmed, which must reckon with the realization of a difficulty in its concretization and the inadequacy of codes and policies to regulate and codify ethical standards and conduct, albeit necessary.

In the sector's literature, in ethical codes and codes of conduct, and in international institutional documents, some common principles-values recur that, translated into behavior and attitudes, must characterize teachers: dignity (as respect for humanity and human rights);, truthfulness (one of the core values in teachers' basic task, which involves steering learners in navigating life and their environment), honesty (with oneself and others and mutual respect in all communication is a basic aspect of teachers' work), fairness (involves, in particular, promoting equality and nondiscrimination and avoiding favoritism), equity (necessary for inclusive

---

² Muriel Poisson 'Ethics and Corruption in Education'. International Institute for Educational Planning".

teaching), responsibility and caring, helpfulness and cooperation, and understanding.[3] In general, the aim of teachers' ethical principles is to draw attention to the ethics involved in teaching [15] (Ib.).

The reference to the teaching process and didactics highlights the strong intertwining between personal ethics and the profession, between the cultural and value dimension, and the political and technical-practical dimension, which in the case of teachers are almost inseparable.

The core of teaching consists of four basic values: dignity, truthfulness, fairness, and responsibility and freedom. All teaching is founded on ethics, whether it be the teacher-student relationship, pluralism, or a teacher's relationship with their work teacher's values and ethical principles [16].

In this sense, the use of the construct of "ethical competence" seems capable of understanding and describing such complexity. Reference is often made to soft skills in documents and scientific articles on teacher ethics, although the boundaries between the different constructs are complex and blurred. "Soft skills, especially ethics, moral, and professional skill, play an important role in sharpening individual's excellent personality by complementing his/her hard skills to the teacher communities" [17].

We are aware that, upstream, the very definitions of ethics and competence are critical (as with all broad concepts); however, even if we are faced with definitional problems due to the intrinsic complexity of our object of investigation, what we can clearly affirm is the need to treat ethics as an element characterizing the profile of teachers, as an essential competence of their profession and as a priority theme for targeted and effective training.

The complicated nature of teaching, in both practice and preparation, encourages teacher educators to explore the complexity of the novice teachers' experiences and identify the concerns they face in their induction year [17] (Ib.).

In the literature, there are studies and attempts to define the complex construct of ethical competence. In the Italo-speaking area, for example, a distinction is made between ethical capacity and ethical competence, highlighting the existential nature of the first as the foundation of the political-professional dimension of the second. Ethical capacity concerns a teacher's action that involves the person in a unitary manner, linking his being to his should-be knowledge to knowhow, individual and relational behavior, emotional attitudes, and finally value choices [18]. The close relationship between ethics, morality, and deontology re-emerges. "The choice that will take shape in the decision must be governed by ethical modalities and oriented by deontology so that the decision itself is rationally oriented to the good for the other" [19]. One speaks in this case of moral decision [20] that tends toward a paradigmatic and operational synthesis distinct in content and field of application on the problematic plane of reality [20] (ib.).

The reference to problematic concerns first and foremost the dilemmas, choices, and uncertainties associated with the relational dimension that characterizes the teaching profession, which requires constant confrontation with one's values, beliefs, and attitudes. "This conflict concerns the totality of the relationships that see pupils and colleagues in the foreground and extend toward families and school institutions [21–23]. Ultimately, a teacher's ethical capacity is precisely the capacity for ethical and deontological decision-making. To decide in the deontological sphere is to

---

3 Teacher's values and ethical principles (oaj.fi).

assume a professional duty, that is to recognize the moral case and set up a rational framework through ethical deliberation in both the content and implementation of his decision" [18].

Ethical competence must, therefore, be understood as an integral part of the teacher's competences since the aspects that characterize the teacher's teaching in relation to other professions are first and foremost the vulnerability and dependence of the subjects in front of them [24]. As Bourdoncle [25] also states, the profession-alization of teachers has a focus on the moral perspective as a distinctive dimension of the teaching profession [26]. Moreover, Fenstermacher [27] highlights among the aspects in which teaching differs from other professions, the function of power that the teacher exercises over the pupil to realize that helping relationship that underlies pedagogical principles.

This aspect concerns the reciprocity of the relationships underlying the expected results. These are not insignificant differences if one considers the double task of teachers as moral agents, that is to behave morally and to train pupils morally. This is indeed a critical key point as it indicates the level of complexity/difficulty for the professional, but also the potential in terms of the teachers' role as a formative and transformative resource. We refer here to the possibility of a reinterpretation of these aspects characterizing ethical competence in the light of embodied cognition; an embodied-based research and training approach can in fact provide a valuable lever to understand and support the deep and complex personal and relational dimensions of teachers that are mirrored in students see, for example, the construct of *Mirror Competences*, [28, 29] and that underpin the possibility of concretizing the "need for ethics" in the everyday reality of schooling.

The track to be taken to support the development of teachers' ethical competences and ethical school contexts requires an investment in teachers' profound formative and transformative processes, which must necessarily accompany the enactment of ethical codes. In short, it is also necessary to invest in another direction of the need for ethics, a direction that explores and enhances the origin and foundational dimensions of ethics in its existential scope.

2. Beyond deontological codes: an approach consistent with the pedagogical perspective and the embodied cognition (EC) approach

As *Vito* Mancuso states in a recent work dedicated to "ethics for difficult days," ethics does not and cannot have a strong and absolute foundation to safeguard its freedom as an unavoidable condition (for its "intrinsic ethicality.") In the absence of freedom, in fact, one remains in the sphere of law and its imposing cogency; ethics based on freedom (hence value and not hetero-imposed regulation) is in turn lack-ing an absolute foundation. At the same time, it is important to note what the author emphasizes: the fact that ethics cannot have an absolute foundation does not mean that it is totally at the mercy of arbitrariness, because a foundation, albeit in the form of a modest floor and not an indestructible rocky foundation, can neverthe-less be found. And the result is a foundation so peculiar that theoretical weakness is matched by considerable existential strength' [30]. In Mancuso's perspective, ethics cannot attain the security that comes from the heteronomous ethics of faith, nor can it aspire to the absolute foundation that comes from incontrovertible reasoning; but, at the same time, it is not left at the mercy of the waves of perplexity and arbitrari-ness. Ethics as freedom can obtain a threefold foundation on the basis of three solid

arguments: the phenomenology of human civilization (which defines the universality of ethics: there is no humanity or civilization that does not know it and does not have its precepts in this regard), the logic of physical reality (the concept of ethics, even before having to be, indicates being), and the peculiar esthetic dimension that coincides with personal sensitivity.

The practice of ethics is the condition for each of us to be truly and authentically human. The highlighting of the "existential robustness" of ethics [30] (ib.), outlines a kind of ontology of ethics, which defines and substantiates the ontological necessity of ethics that we have affirmed so far.

This is a very interesting perspective for reflection about ethics in relation to teachers and teaching since it is functional and consistent with the current inclusive pedagogical perspective assumed by training and education systems at the transnational level, which, as we have seen, recognize ethics as a secular and universal value placed at the center of professional profiles and codes. Ethics represents an "alternative way to the way of power and oppression" [30] (ib.); a conceptualization that is useful in overcoming the logic of the strong and ableism in school, training, and work contexts. In this sense, it is possible to identify ethical competence as a necessary and essential competence for inclusive professionals and inclusive education [31].

Moreover, the idea of ethics as a scientific, natural, and humanistic dimension, as well as a value and political one, is consistent with the embodied cognition (EC) approach and the "embodied-based" training approaches aimed at the development of life—soft skills [28, 29]. Going back to Mancuso's model, the three foundations outlined can be harmonized with each other, although, according to the author, the third of these, the esthetic way, is the most congenial because of its connection to the essential dimension of life, to being, to the soul.

Taking our point of view, we share the relevance of the existential esthetic dimension of the argumentation about the human condition as the foundation of ethics (the ethical question is nourished by love, bonding, and beauty that is relational care, intersubjectivity); however, we would also like to highlight the poignancy and closeness of the embodied cognition perspective (and in particular our studies and research on inclusive skills and teacher training) in the second foundation identified by Mancuso, the physical-natural one, which is closely connected to the third (esthetics). "Ethics expresses at the interpersonal level the same logic of bodily health at the individual level. This logic of health is called homeostasis, which indicates a dynamic equilibrium from which we can see that living means carrying out a series of operations and exchanges (…); the logic of biology also presides over ethics and consists in a question of respect and the application of rules (…); the logic at the basis of our formation following the encounter of the germ cells of our parents is the same logic that, as adults, must guide our free conscience in orienting ourselves and acting consciously in the world" [30] (ib.).

Within this perspective also lies the idea of the need for in-depth teacher training in embodied relational ethics, in the intersection of phenomenological aspects, the body, social interaction, and esthetics. A training that should not replace, but rather accompany, the production and knowledge of ethical codes on a macro-institutional level, but which is on another formative level—transformative, global personal, acting on the profound change of attitudes and behavior in professionals.

The embodied cognition approach, due to its characteristics, focuses on the second way and stresses the relationship between the body and social interaction as a founding dimension of ethics. As Caruana and Borghi [32] point out, despite the flourishing

of multiple versions and interpretations of embodied cognition, two cornerstones are shared by all the "new mind scientists;" the rejection of the "mental sandwich" metaphor (for overcoming the idea of a clear cut between perception and action and cognitive processes) and the rejection of the computer metaphor (for overcoming the idea of a clear cut between mind-body-environment).

Any explanation of our cognitive processes must necessarily also consider the body and the environment, including the social environment, that surrounds us [30]. The idea of any mental representation, even the moral and ethical representation underlying the understanding of everyday ethical dilemmas and the responsibility of choice, must be rethought in its embodied and relational dimension.

3. Research training with "inclusion specialists" teachers

As we have seen, the practice of ethics is the condition for each one of us to be truly and authentically human [30] (ib.) and is the basis of the expected behaviors in teachers' profiles; in this sense, in view of the shortcomings and criticalities noted in the first paragraph, we intend to think and design actions and paths to support the development of an authentic and effective practice, which is consistent with the idea of ethics shared above.

Assuming the model of ethics as an ontological necessity, we can identify its essential-existential foundational dimensions as priority tracks for the development of an ethical essence/skill, as a constitutive aspect of ethical competence.

Our summit focuses on certain tracks and dimensions of ethics that are consistent with the embodied cognition perspective and, for this reason, does not claim to be exhaustive. We will focus on the second and third foundational dimensions: the logic of physical reality and the esthetic dimension. The former is based on the body's natural logic of creating bonds and places the interpersonal dimension at the center. In the perspective of embodied cognition, the construct of intersubjectivity, declined as a "natural but also biological and social" element, can be understood as a kind of embodied root (nature, environment, body) of a characteristic aspect of ethics. The second foundational dimension recalls the embodied dimensions of the sense of beauty, taste, and justice.

We have already pointed out how ethical competence, understood in this way, is at the basis of the better known and broader "inclusive competence" and, in this sense, constitutes a fundamental and necessary element of professionalism for all teachers since all teachers are and must be "inclusive teachers."

In order to start exploring the dimensions characterizing ethical competence, the object of our work, we chose a "privileged/priority" target represented by teachers specializing and/or specializing in support activities for pupils with disabilities, as "inclusion specialist teachers."

Specifically, we administered the initial questionnaire (Annex A) to the trainees of the one-year specialization course provided by the Italian Ministry of Education, who, despite the variety of their legal positions (some are already specialized teachers, others are teachers working on support activities but without a specialization qualification, others are curricular teachers, others have only occasional teaching experience), share a basic cultural motivation and a highly qualified training course on inclusion issues.

This preliminary investigation will be followed by the construction of a research-training design, broad and general, addressed to all in-service teachers, aimed at developing and enhancing the dimensions explored.

3.1 The constructs: intersubjectivity and sense of justice in the light of EC

In recent years, the literature has produced studies and research on the theme of intersubjectivity, according to a broadened perspective that, starting with the approaches of infant psychoanalysis and neuroscience, has gradually involved various scientific and disciplinary fields. Intersubjectivity has taken neuroscience, more than any other topic, out of the laboratories of neuroscientists and into those of philosophers, psychiatrists, sociologists, and linguists, as well as into theaters and novels [32] and into schools. A work dated 2018 [33] proposes a review of the literature on the dynamics of intersubjectivity in primary and secondary schools, in which it is stated that the concept is considered relevant in education, to enhance different types of collaborative learning situations and to improve instructional design.

The discovery of mirror neurons gives us a new empirically based notion of intersubjectivity, mainly characterized as inter-corporeity. As Gallese [34] states, neuroscience has begun to investigate domains such as intersubjectivity, the self, empathy, decision-making, ethics, esthetics, economics, etc., opening a series of questions about the permissibility and/or capacity of cognitive neuroscience to shed new light on characteristic aspects of human subjectivity such as art, creativity and esthetics, and politics (p. 9). This interest has made a "phenomelogization" of neuroscience and the redefinition of the meaning of intersubjectivity desirable to avoid spurious and reductionist views and has led to the new scientific approach to the study of the human condition that starts from the study of the bodily dimension of cognition (the Embodied Cognition approach). In this field, the problem of the subject now sees the convergence of phenomenological and neuroscientific perspectives [34]. "Starting from an analysis of experience and the role that the living body plays in the constitution of our experience of things and of others can allow an empirical study of the genetic aspects of subjectivity and intersubjectivity on a new basis compared to those adopted so far by classical cognitivism, that is, without eliminating the first-person aspects of experience. Francisco Varela had sensed a similar possibility and started a course of analysis in this direction [34, 35]. In redefining the dialectic between subjectivity and intersubjectivity, a new explanation of the origin and foundational nature of the latter (being as being with) emerges.

The discovery of mirror neurons made it possible to derive—at the level of sub-personal description—subjectivity from intersubjectivity (man is the result of being with and not the other way around) and delivered an empirically grounded notion of intersubjectivity, connoted first and foremost as inter-corporeity—the mutual resonance of intentionally meaningful sensorimotor behavior.

"The ability to understand others as intentional agents, far from depending exclusively on mentalistic-linguistic skills, is highly dependent on the relational nature of action (…). Inter-corporeity, thus, becomes the main source of our knowledge of others. Action does not exhaust the rich store of experience involved in interpersonal relationships" [34] (ib.). Inter-corporeality is the basic level of intersubjectivity; the body is the priority and the non-further reducible of experience. We reuse our mental states or processes represented in corporeal format to functionally attribute them to others [36].

According to neuroscientists, mirror activity is modulated by the personal experience of the observer, and the mechanism reflects something deeper than simple muscular movement. This explains the congruence between personal ability and observed action. Furthermore, recent studies suggest that in addition to being at

the basis of forms of motor resonance, the mirror mechanism is activated when we observe complementary actions, allowing us to anticipate the possible actions of others and to prepare ourselves to respond appropriately [37, 38]. Jannerod [39] asserted that without the involvement of the motor system, visual perception, as well as auditory perception [40], would only provide a description of the sensory aspects of movement and would not give any information on the components of the action that are instead essential to understand the purpose and to be able to reproduce it [32]. Embodied simulation plays an essential role in social interaction [24, 41].

We have already highlighted how the embodiment perspective changes the conception of thought and mental representations. Understanding becomes something broader than a mere exercise in abstraction; the contents of our mental representations are inconceivable apart from our corporeality. "We can undoubtedly use forms of representation that utilize a non-corporeal format. But it is difficult to imagine how the human propositional representational format could have developed apart from our corporeity. We can transcend it with language, but I suspect that the link with the body is always there" [34].

The esthetic dimension can also be interpreted and enhanced in the light of embodied cognition; the esthetic foundation of ethics, identified by Mancuso as the third way, is constituted by the "originally motivating" experience that derives from a kind of attraction for the beautiful and the just and for the "beauty of justice" [30]. Like intersubjectivity, the "sense of the just/beautiful of justice" is also a concept that has been investigated regarding schools and teachers' competences as central to the quality of teaching. It too, such as intersubjectivity, has a relational neurobiological foundation and is expressed in the interaction between body mind environment, it is a product of evolution and is rooted in the ability to develop long-term cooperation [42]. The human response to injustice, which is fundamental for sustaining the relationship and cooperation between people, is based on the ability to imagine and understand from the activation of sensorimotor systems, and through these can be nurtured and enhanced.

3.2 The research design

In the light of the framework outlined above, we propose to begin collecting and evaluating certain aspects of teachers' ethical competence, more specifically the foundational dimensions of ethics, starting with intersubjectivity and the sense of the just, to design training courses aimed at improving and implementing the "practice of ethics." In this article, we will present the results of the first phase of the research dedicated to the construction of the survey instruments and their administration for the collection of information on teachers' ethical competence. The second phase, on the other hand, will be devoted to the implementation of the training course, in relation to the results obtained and the training needs that emerged. More specifically, this phase will be aimed at developing and improving the foundational dimensions of ethical competence, starting from those explored during the first phase of the research and illustrated here (interpersonal skills/intelligence and sense of justice). Also, envisaged is the implementation of the esthetic sense, as a further aspect of competence closely related to the sense of justice and the perception of the good, through a comprehensive and innovative training approach, based on the principles of embodiment, which emphasizes inter-corporeity as a privileged mediator. Methods and devices that have already been tried and tested will be used (see, for example, [28, 43, 44]).

3.2.1 Theory/research hypothesis

Working on the foundational dimensions of ethics, according to a coherent embodied cognition-based methodological approach, allows attitudes and behavior (being and knowing how to be) to be improved as essential parts of ethical competence and ethical practice in professional contexts. Our hypothesis centers on the effectiveness of a two-part training model in enhancing teachers' ethical competence, particularly in intersubjectivity and justice. Through initial questionnaire data collection and subsequent training implementation, we anticipate significant improvements in teachers' abilities to navigate ethical complexities. Thus, our belief is that structured training will lead to measurable enhancements in ethical competencies, contributing to educators' effectiveness in inclusive practices.

3.2.2 Method

The overall work is characterized as a research training, articulated in two phases: the first investigation, theoretical and empirical, on the dimensions inherent in the framework constructs and the second training to be carried out a posteriori. To conduct our investigation on the intersubjectivity, with a specific focus on the relationship teachers-students, we have adopted a methodological approach that combines qualitative and quantitative elements to obtain a thorough and complete understanding of the phenomena under examination. This integrated qualitative-quantitative methodology, endorsed by Creswell and Plano Clark [45], offers a comprehensive approach to research and evaluation. By combining qualitative and quantitative methods, we can gain richer insights and enhance the validity of our findings. The heart of our methodology is represented by the self-report questionnaire built ad hoc, described later in detail. This tool was administered in a qualitative-quantitative manner, allowing participants to express their perceptions through structured responses, while this provided us with the opportunity to analyze quantitative data in depth.

The use of an integrated methodology has allowed us to grasp the complexity of inter-objective relationships while providing significant quantitative data that enrich our understanding of the dynamics involved. This mixed approach, with the questionnaire as the focus, provided us with a robust platform to explore and interpret the nuances of intersubjectivity in the educational context.

3.2.3 Instruments

Our study used a specially developed self-report questionnaire, divided into two distinct sections to investigate the constructs of intersubjectivity and sense of justice. The questions within the questionnaire are all custom-made and are all based around various papers regarding ethics within the school environment, such as Biancato [4] and Pianta [12]. This is the first major use of this questionnaire and, given the difficulty of the subject studied, some bias must be taken into consideration, such as the desirability bias. This detailed tool is divided into eight sections, each focused on specific aspects such as general perception, emotional connection, communication and understanding, collaboration and support, cultural sensitivity, technology and communication, general satisfaction, and sense of justice. In total, we have 42 multiple-choice items, aimed at exploring in detail the perceptions and evaluations of participants. This articulated structure of the questionnaire aims to comprehensively capture the complex facets of subjective experience in intersubjective contexts and in

the perception of justice (Annex A: The Self-Report Questionnaire: "Intersubjectivity Questionnaire and Teacher-Student Relationship").

3.2.4 The sample

The first phase of the research is aimed at the investigation of perceptions on one's own competences related to intersubjectivity and sense of justice, addressed to over 500 teachers (with a 4:1 ratio between females and males, in eight different age ranges, from 21–25 to 56–60 years old) specialized and specializing in educational support activities for students with disabilities at four Italian universities. This included specialized teachers, those working in support roles without formal specialization, regular subject teachers, and individuals with sporadic teaching experience. These teachers were selected because they are "inclusion experts," for whom the professional profile includes strong relational skills, which concern responsibility, fairness, justice, collaborative skills, and all the other characteristics recognized as the basis for ethical behavior, and which are codified in international codes of ethics.

3.2.5 Results

The data analysis of the "Intersubjectivity Questionnaire and teacher-student relationship" reveals interesting demographic trends and challenges in the collection of specific information. The majority of participants are concentrated in the 26–55 age group, with a predominantly 1–10-year teaching period. The primary schools come from secondary schools. However, there has been a difficulty in collecting data on degrees, subjects of instruction, universities of adherence, and the province due to open responses, which would require further additional work to obtain numerical results. In general, the answers to the questionnaire on intersubjectivity and teacher-student relationship show a clear trend that is evident in all its sections; the answers oscillate mainly between "agree" and "strongly agree," with a prevalence of the first option, preferred by the majority of subjects; answers with a majority of "strongly agree" refer mainly to the importance of positive emotions and empathy in the relationship with students (see for es. Annex B: the Figures n. 4, 7, 12).

The item analysis reveals interesting details.

In the first item of Section 1, "I believe that positive teacher-student relationships contribute to a better learning environment," the remarkable 75.5% of responses "strongly agree" suggests a broad consensus on the importance of positive relationships. In Section 4, relating to "collaboration and support", the item "I involve students in decision-making when appropriate "highlights a 15% of "neutral" responses, suggesting a variety of opinions on engaging decision-making. The second statement in Section 4, "I believe students should have a voice in defining the learning environment," shows a 17.2% of "neutral" responses and a 4.5% of "disagreement," indicating a divergence of views on student participation in defining the learning environment (Annex C). As regards the three questions of Section 6, "technology and communication," "neutral" answers between 21.9% and 22.7% indicate moderate indecision or ambivalence regarding these aspects, stressing the importance of further investigation to better understand the dynamics of technology and communication in the teacher-student relationship (see for es. Annex D: the Figures: 31, 33).

As for the section dedicated to the construct "sense of justice,", of particular interest is the predominant answer to the last question, where it is stressed that the

application of justice in school mainly concerns "the observance of the rules by all subjects" (Annex E).

The analysis of the answers obtained from the questionnaire revealed a correlation, albeit small, in a range of Spearman between weak and moderate among the items considered. In addition, significant differences emerged between men and women for some specific items, including 6 (I believe that fostering a sense of community in the classroom is essential for effective teaching), 13 (I actively listen to students during class discussions), 14 (I seek feedback from students on my teaching methods), 16 (I am open to constructive criticism from students and use them to improve my teaching), and 27 (Respect and value cultural differences between my students)highlighting variations in gender responses. On the contrary, as regards the schools of origin, no significant differences were found for any of the items, suggesting consistency in the answers regardless of the school origin. These results provide an important perspective in the analysis of questionnaire responses, highlighting gender dynamics and suggesting a uniformity of perceptions between the different schools involved in the study.

4. Discussion, conclusions, and perspectives

We started by reflecting on the theme of the "need for ethics" as an essential aspect of the teachers' professional profile (ethical competence), recognized and affirmed by international documents, and by noting the gap between what is stated in the teachers' ethical codes—where they exist—and the concrete processes and actions at school (particularly with regard to ethical practices directly related to guaranteeing equitable and inclusive schools). We have, therefore, attempted to understand the nature of ethics as an existential practice, before being professional, through the assumption of a model consistent with the embodied cognition perspective, to highlight its foundational dimensions from a different perspective. At the same time, we have designed a research-training course that has seen the initial involvement of over 500 teachers in training at four Italian universities, to begin investigating two dimensions that constitute essential elements of ethical competence and, from the second part of the academic year, to devise a path for the empowerment of these dimensions, through an "embodied-based" training approach.

In summary, this contribution intends to offer an original and integrative key to the theme/problem of the ethical competence of teachers, beyond that proposed by the institutional documents, and to the still open question of research and training on complex personal dimensions, connected to the "soft skills" of professionals, such as those relating to ethics.

Through the administration of the questionnaire, we were able to collect data on teachers' perceptions of the dimensions of ethical competence, which constitute an initial corpus from which to draw information in need of further investigation. In fact, in addition to the methodological limitations inherent in the research design (lack of a control sample, questionnaire not yet validated, exclusive use of a self-report instrument), the social desirability bias hypothesis must always be considered, which, being difficult to measure, may have influenced the results. However, we feel it is important to have opened a systematic and documented investigation space on such a complex subject, by focusing on aspects that are generally still under the radar (or taken "for granted") in the teaching profession. In general, the information gathered is useful for formulating new research hypotheses and, secondly, for devising ad hoc development and training paths.

As we have seen, the questionnaire reveals a general perception of the importance of the quality of the teacher-pupil relationship, but the answers on teachers' behavior

do not always support this perception. For example, awareness and/or willingness toward practices of co-participation, co-planning, and sharing of choices with pupils, which are instead essential to support self-determination and the ability to make choices, recognition, and empowerment, as indicators of the practice of an ethics of relationships, are less evident. With reference to the connection with equity and inclusion, it is of relevance that these teachers' behaviors and attitudes (educating for choice; building opportunities for recognition and empowerment…) are useful for all learners to foster their education as adults and aware citizens but are indispensable precisely for those learners with fragility and/or at risk of exclusion. The absence of this kind of "stimulation" on the part of teachers and the learning environment, as the biopsychosocial perspective of the International Classification of Functioning [17] and the social model of disability [46–48] well point out, represents a disabling factor, a barrier to the development of learners' life skills and to inclusion.

Regarding the section dedicated to the construct "sense of justice," of particular interest is the predominant response to the last question, where it is stressed that the application of justice at school, for most teachers (86.2%) mainly concerns "the observance of rules by all subjects." This suggests a prevailing idea of "justice" at school related to obedience/observance of the rules, therefore hetero-directed, determined by mainstream culture; a narrow idea of justice disembodied from experiences and esthetic sense and scarcely connected with educational action. However, it is interesting to note that, given the choice of more than one option, the second choice falls on items related to relationships (with pupils, with families, with colleagues) for a total percentage of 64% of responses. Even though an "abstract" idea of right as a rule, as a duty to be, is predominant, the perception of the relationship between a sense of right and relational experience is relevant. On this perception it is possible to open a space for reflection and action in a formative and transformative sense on one's own way of being an "ethical teacher" and on the impact on interpersonal relational practices. Finally, it seems important to note that the questionnaire was administered to a population of teachers who are particularly attentive and trained (and in training) precisely on the issues of relationships and inclusion; therefore, we can assume that the shortcomings noted here are present and—probably amplified—in most teachers.

In the light of these results, the second phase of the research training will be launched, as described in the previous paragraph. Beyond the enhancement of what we consider to be the foundational dimensions of ethics, and thus the improvement of teachers' ethics practice, training according to an "EC-based" approach represents an opportunity to rethink and experiment with innovative and functional ways of developing the complex competences of professionals in the current and future challenging scenario. The elements characterizing our approach can be identified along two lines: the first, based on the embodiment paradigm, contemplates, and valorizes key aspects that are transversal to other training paradigms and models (art, narration, metaphor, emotions, reflexivity) and the second focuses on some "original" elements, pertaining to disciplinary fields in dialog with neurosciences, which are reinterpreted and declined in "EC- based" training settings [43, 49]. During training, the body becomes the protagonist, experiencing itself in such a way as to increase the centrality of the existential, interbody emotional, perceptive, and reflexive dimension, both in the learning process and in human relations, to highlight how the environment influences the expression of one's emotional states and is essential for the structuring of ethical and creative empathic relations [50].

Specifically, the answers to the questions in sections 2–5 provide data in the area of intersubjectivity and those in Section 8 on the sense of justice. At this stage of

our study and on this specific object (exploration of the essential dimensions of the construct of ethical competence), it is not possible to identify the presence/ lack of intersubjectivity and the sense of justice in terms of entity and objectivity (of objectifiable substance), binary (presence yes/absence no) or quantitative (levels of presence or lack) as these are complex dimensions, hardly reducible to singular measurable elements, particularly in the educational field, where they acquire value only if considered from an ecological-relational perspective.

Therefore, it is possible to start up a hermeneutic-phenomenological participatory reflective process according to a research-training approach (within a general Mixed Method design) that also makes use of quantitative data [51]. For this purpose, collective meetings and focus groups have been planned with the teachers involved, to be held by the end of this school year, for the presentation and discussion of the questionnaire results. For the next academic year, embodied-based training workshops are planned. The analysis of the results of the questionnaire and of these courses will contribute to the definition of a broad general research-training design for all in-service teachers. In summary, the information obtained from the questionnaire and discussed with the teachers is useful for two purposes:

1. To encourage debate on ethical competence and the focusing of its essential dimensions, in relation to the teaching profession.

2. To support the reflective and transformative processes of expert teachers on inclusion (and then of all teachers) on the dimensions of ethical competence, through the implementation of coherent training approaches.

These are transformative paths, which foster the acquisition of awareness of one's own ideas, knowledge, and teaching and relational practices, through participation in workshop and experiential paths that support the development of the embodied dimensions of intersubjectivity and sense of justice. We know how, according to the embodied cognition perspective, intersubjectivity is mediated by intercorporeality and the body, as a "pre-reflective and preverbal vehicle, capable of transferring meanings from one person to another" [34].

The embodied cognitive process utilizes bodily representations (motor, sensory, affective) in the execution of a cognitive learning task. Through the mechanism of embodied simulation, empathy is experienced as a transformative relational experience that allows the subject to "move away from his own body to enter that of others" [52], favoring the perception of oneself and one's way of being in relation to others. The embodied decision-making mechanism, acquired through experience and constantly subject to change "guides" [53] the individual in personal behavioral choices "like a kind of wisdom derived from the body" ([32], p. 25). Within this framework, the "EC -based" training strategies that will be used in the paths with teachers are based on the following aspects: social learning, art and corporeity, imagination and dreaming, body relaxation and mindfulness, reflexivity and storytelling, and creativity and foresight. The group and in-presence participation constitute the privileged setting for this type of training, but blended modalities are also being tested, which alternate between collective in-presence moments and collective and individual remote moments.

The ultimate aim of EC-based training is consistent with and functional to the development of relational ethical competence, the foundation of professionals' soft skills.

Conflict of interest

The authors declare no conflict of interest.

Annex: Questionnaire on intersubjectivity and teacher-student relationship for teachers

Welcome to our questionnaire on Intersubjectivity and the Student-Teacher Relationship! Your participation is crucial for a better understanding of these elements in the field of education. We kindly ask you to share your experiences and opinions sincerely. The questionnaire is anonymous, and the data will be treated in an aggregated manner, purely for research purposes. Your responses will contribute to a deeper understanding of the dynamics between students and teachers.
Please complete the questionnaire within ONE WEEK.
Thank you very much for your time and valuable participation!
Section 0: Personal data.
Answecthe appropriate box.
Select your gender:

• Male

• Female

• Other

Select your years of teaching:

• −1

• 1−5

• 6−10

• 11−15

• 16−20

• 21−25

• 25−30

• 30+

Select the school level where you teach:

• Preschool

• Primary school

• Lower secondary school

• Upper secondary school

Indicate your teaching subject:
(Open-ended response)
List all types of degrees you hold:

• High school diploma (secondary school, technical, professional…)

• First-cycle university degree (Bachelor's degree)

• Third-cycle university degree (Ph.D.)

• Other degrees (Specialization diploma, First/Second-level Master's, Advanced diploma…)

• High artistic, musical, and dance education degree (First and second-level academic diploma))

• Specialization for teaching support activities for students with disabilities

• Other (Open-ended response)

Indicate your affiliated university:
(Open-ended response)
Indicate your province of residence:
(Open-ended response)
Instructions: Respond to the following statements by indicating the extent to which you agree or disagree. Use the scale below:
Strongly Disagree.
Disagree.
Neutral.
Agree.
Strongly Agree.
Section 1: General perception

• The atmosphere in my class promotes open communication with students.

• I feel comfortable expressing my expectations and concerns to students.

• I actively encourage student participation and interest in my lessons.

• I believe positive teacher-student relationships contribute to a better learning environment.

• I am aware of the impact my interactions with students can have on their overall school experience.

• I believe fostering a sense of community in class is essential for effective teaching.

Section 2: Emotional connection

- I make an effort to understand the emotions and concerns of my students.

- I address the emotional needs of my students in a supportive manner.

- There is a sense of mutual respect between me and my students.

- I am aware of the emotional climate in my class and its influence on the learning process.

- I actively work to create a positive emotional environment for my students.

- I believe expressing empathy is crucial for building strong teacher-student relationships.

Section 3: Communication and understanding

- I actively listen to students during class discussions.

- I seek feedback from students on my teaching methods.

- I strive to understand the perspectives and experiences of my students.

- I am open to constructive criticism from students and use it to improve my teaching.

- I provide clear and consistent communication about expectations and assignments.

- I believe effective communication is fundamental for building strong teacher-student relationships.

Section 4: Collaboration and support

- I involve students in decision-making processes when appropriate.

- I provide support to students in achieving their academic goals.

- Collaborative projects and group activities enhance the relationship between me and my students.

- I encourage a sense of teamwork and collaboration among students in my lessons.

- I believe students should have a voice in shaping the learning environment.

- I am available and accessible to students seeking guidance or support.

Section 5: Cultural sensitivity

- I demonstrate cultural sensitivity and inclusivity in my teaching.

- The curriculum I use includes diverse perspectives and experiences.

- I respect and value cultural differences among my students.

- I actively incorporate cultural awareness into my teaching practices.

- I believe promoting cultural understanding contributes to a positive classroom environment.

- I am committed to creating an inclusive and culturally responsive learning space.

Section 6: Technology and communication

- I effectively use technology to facilitate communication with students.

- Online platforms and tools are integrated into my teaching to enhance communication.

- I actively explore new technologies to improve communication and engagement in my lessons.

Section 7: Overall satisfaction

- Overall, I am satisfied with the level of intersubjectivity in my teaching environment.

- The teacher-student relationship in my school positively contributes to the learning environment.

- I believe continuous professional development can improve teacher-student relationships.

Section 8: Sense of justice

- I consider justice central to my teaching profession.

- I believe it would be useful to discuss justice at school with my colleagues.

- When making decisions involving students, I try to clearly explain the reasons behind the choices made.

- I encourage the fair and objective participation of all students.

- I feel that discussing justice at school is beneficial for both teachers and students.

- The application of justice at school primarily concerns (Max 2 responses):

- Adherence to rules by students

- Adherence to rules by teachers

- Adherence to rules by all parties

- Relationship with students

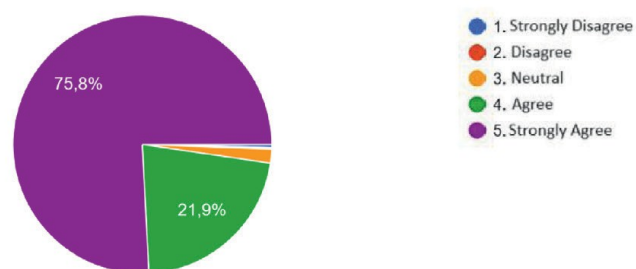- Relationship with colleagues and the school principal

- Relationship with families

- Curriculum planning

- Teacher preparation

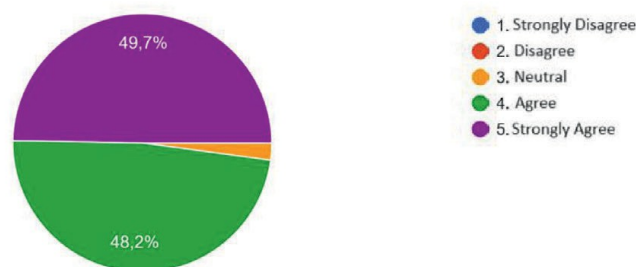- Other (Open-ended response)

B.Annex

See **Figure B1**.

4. I believe positive teacher-student relationships contribute to a better learning environment.

517 answers

7. I make an effort to understand the emotions and concerns of my students.

517 answers

12. I believe expressing empathy is crucial for building strong teacher-student relationships.

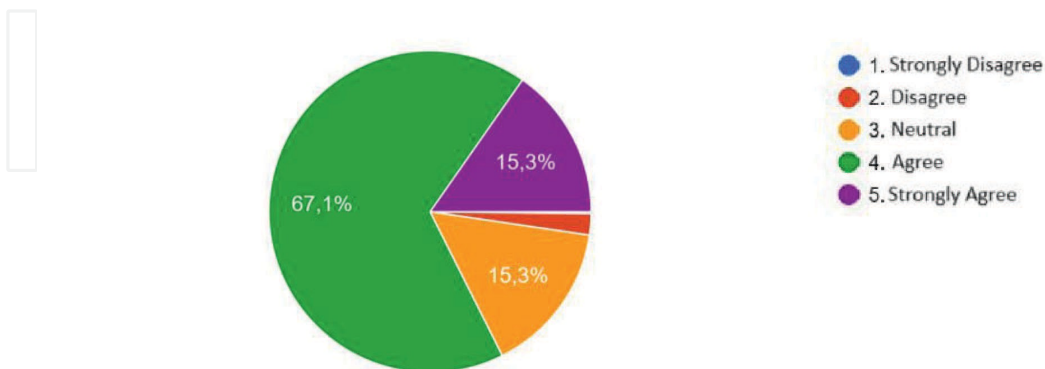517 answers

Figure B1.
Pie Charts illustrating teachers' responses to key questions on intersubjectivity and teacher-student relationships. The overwhelming majority of participants indicated 'Strongly Agree' to statements emphasizing the importance of positive teacher-student relationships, empathy, and understanding students' emotions and concerns in fostering a conducive learning environment.

19

C.Annex

See **Figure C1.**

19. I involve students in decision-making processes when appropriate.
517 answers

23. I believe students should have a voice in shaping the learning environment.
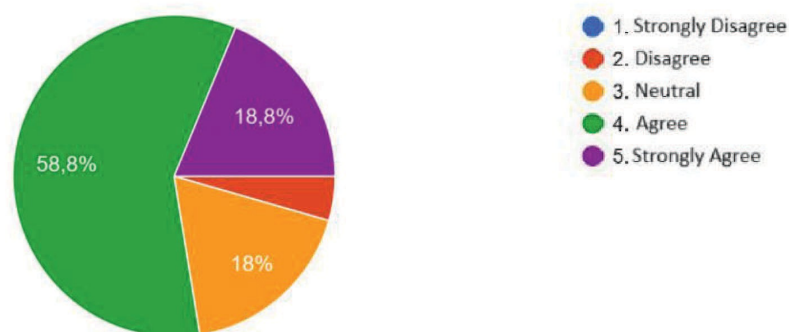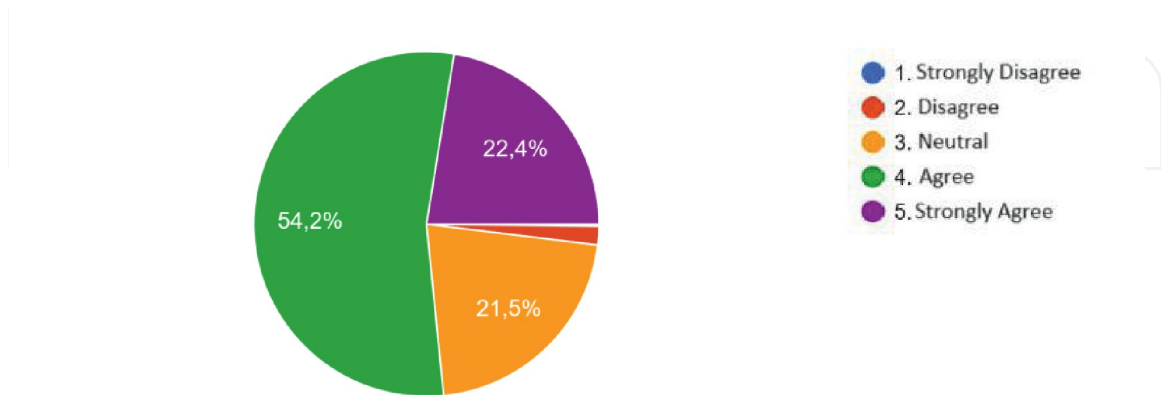517 answers

Figure C1.
Pie charts depicting the distribution of responses from teachers participating in the "Collaboration and Support" section. While a significant portion of subjects indicated 'Agree' to statements regarding student involvement in decision-making processes and shaping the learning environment, notable proportions also expressed 'Neutral' and 'Strongly Agree.' This suggests a spectrum of perspectives among educators regarding student empowerment and participation in educational decision-making.

D.Annex

See **Figure D1.**

31. I effectively use technology to facilitate communication with students.
517 answers

32. Online platforms and tools are integrated into my teaching to enhance communication.
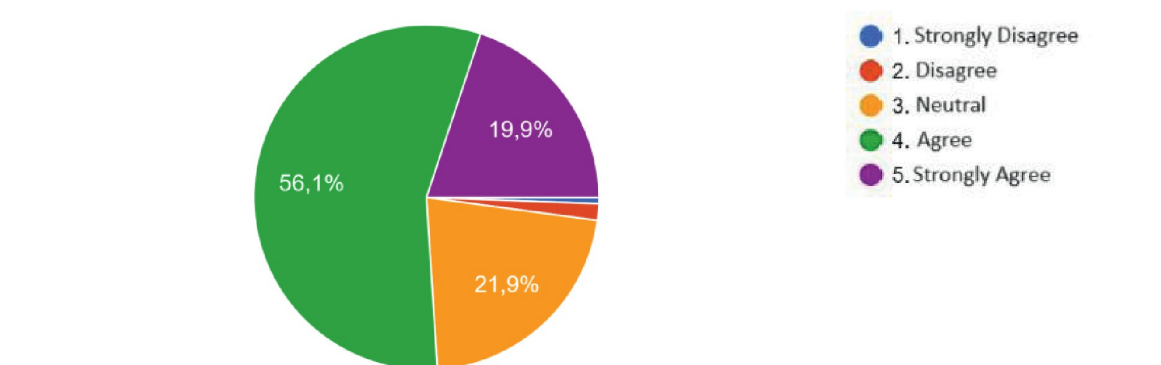517 answers

Figure D1.
Distribution of Responses from Teachers on the "Technology and communication" section, depicting the utilization of technology for communication in teaching. While a majority of subjects responded with 'Agree,' notable proportions also indicated 'Neutral' and 'Strongly Agree.' This suggests varying levels of adoption and perception regarding the effective use of technology for facilitating communication with students and integrating online platforms into teaching practices.

E.Annex

See **Figure E1.**

42. The application of justice at school primarily concerns (Max 2 responses):
517 answers

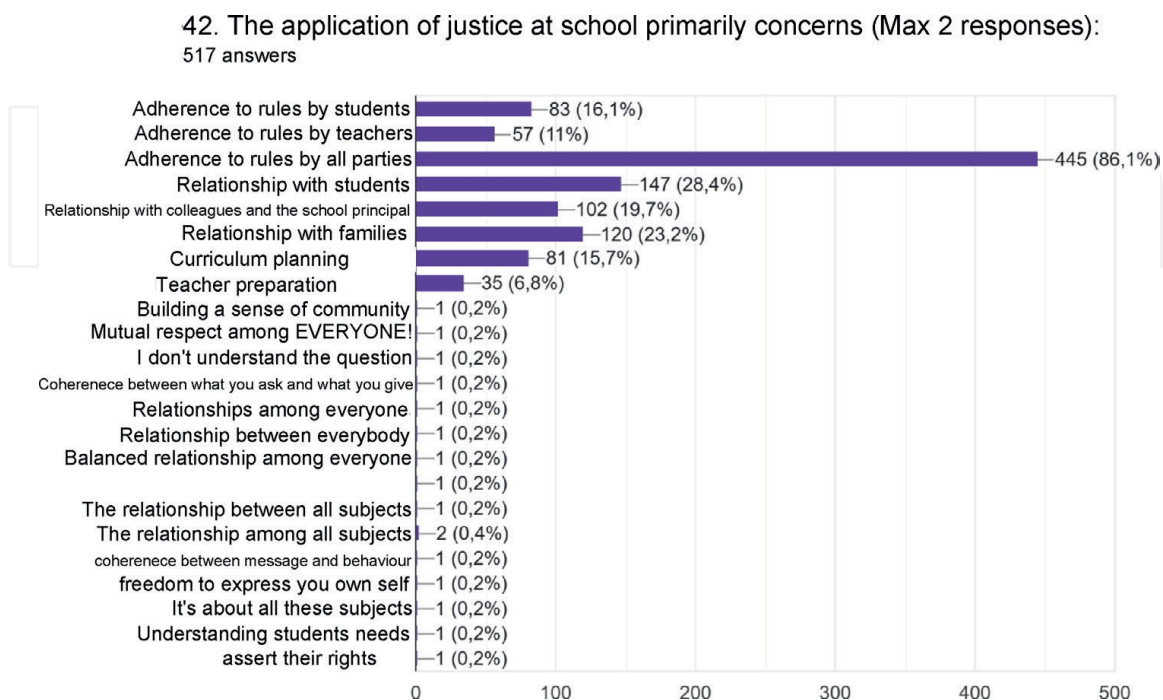|	
Adherence to rules by students	83 (16,1%)
Adherence to rules by teachers	57 (11%)
Adherence to rules by all parties	445 (86,1%)
Relationship with students	147 (28,4%)
Relationship with colleagues and the school principal	102 (19,7%)
Relationship with families	120 (23,2%)
Curriculum planning	81 (15,7%)
Teacher preparation	35 (6,8%)
Building a sense of community	1 (0,2%)
Mutual respect among EVERYONE!	1 (0,2%)
I don't understand the question	1 (0,2%)
Coherenece between what you ask and what you give	1 (0,2%)
Relationships among everyone	1 (0,2%)
Relationship between everybody	1 (0,2%)
Balanced relationship among everyone	1 (0,2%)
	1 (0,2%)
The relationship between all subjects	1 (0,2%)
The relationship among all subjects	2 (0,4%)
coherenece between message and behaviour	1 (0,2%)
freedom to express you own self	1 (0,2%)
It's about all these subjects	1 (0,2%)
Understanding students needs	1 (0,2%)
assert their rights	1 (0,2%)

Figure E1.
Bar Graph Depicting Responses to the Open-Ended Question in the 'Sense of Justice' Section: 'The application of justice at school primarily concerns…' The most voted answer, 'Adherence to rules by all parties,' indicates a prevalent perspective among respondents regarding the primary focus of justice application within the school environment.

Author details

Paola Damiani[1*†], Davide Brancato[2†] and Filippo Gomez Paloma[3†]

1 University of Modena and Reggio Emilia, Modena, Italy

2 University of Cassino e Lazio Meridionale, Cassino, Italy

3 University of Macerata, Macerata, Italy

*Address all correspondence to: paola.damiani@unimore.it

† The article is the result of joint research by the authors; the writing of the text was divided as follows: Paola Damiani: paragraphs 1-2-3-4; Davide Brancato: sub-paragraph 3.2; Filippo Gomez Paloma: scientific supervision of the work.

IntechOpen

References

[1] Bagnoli C. Ethical Constructivism. Cambridge: Cambridge University Press; 2022

[2] van Nuland S, Khandelwal WP, Biswal K, Dewan EA, Bajracharya HR. Ethics in Education: The Role of Teacher Codes. Canada and South Asia - UNESCO Digital Library. Paris: International Institute for Educational Planning; 2006

[3] Mancuso V. Etica per giorni difficili. Milano: Garzanti; 2022. pp. 20-103

[4] Biancato L. Professione docente e pratica dell'etica professionale. 2019;**18**(4):337-341

[5] OECD. Teachers Getting the Best out of Their Students: From Primary to Upper Secondary Education. Paris: TALIS, OECD Publishing; 2021. DOI: 10.1787/5bc5cd4e-en

[6] Oliver M. Understanding Disability: From Theory to Practice. Basingstoke: Macmillan; 1996. p. 33

[7] OECD. Education at a Glance 2023: OECD Indicators. Paris: OECD Publishing; 2023. DOI: 10.1787/e13bef63-en, 423

[8] Varela FJ, Shear J, editors. The view from within: First person approaches to the study of consciousness. Journal of Consciousness Studies. 1999;**6**:2-3

[9] Nganga TK, Chanb TC. The Importance of Ethics, Moral and Professional Skills of Novice Teachers a School of Educational Studies. Penang: University Sains Malaysia; 2015. p. 8

[10] d'Alonzo L. La gestione della classe per l'inclusione. Scholé: Brescia; 2020

[11] Damiani P. Formare insegnanti inclusivi alla luce dell'Embodied Cognition. Lecce: Pensa Multimedia; 2021

[12] Pianta RC. Patterns of relationships between children and kindergarten teachers. Journal of School Psychology. 1994;**32**:15-32

[13] Poisson M. Guidelines for Design and effective use of teachers codes of conduct. Paris: UNESCO, IIEP; 2009. p. 13

[14] UNESCO. Education for Sustainable Development Goals: Learning Objectives. Paris: United Nations Educational, Scientific and Cultural Organization; 2017

[15] Sartori L, Cavallo A, Bucchioni G, Castiello U. From simulation to reciprocity: The case of complementary actions. Social Neuroscience. 2012;**7**:146-158

[16] Tronick E. Regolazione emotiva. Nello sviluppo e nel processo terapeutico. Milano: Cortina Raffaello Editore; 2008

[17] Tirri K, Husu J. Care and responsibility in 'The best interest of the child': Relational voices of ethical dilemmas in teaching. Teachers and Teaching: Theory and Practice. 2002;**8**(1):65-80

[18] Brunetti I. I valori degli insegnanti tra decisione e competenza etica. In: Formazione & Insegnamento. Vol. XI(4). Lecce: Pensa MultiMedia; 2013. p. 153

[19] Da Re A. Filosofia morale. Storia, teorie, argomenti. Bruno Mondadori: Milano; 2008

[20] Dewey J. Experience and Nature. New York: Dover; 1929. p. 24

[21] Campbell E. The ethical teacher. Maidenhead-Philadelphia: Open University Press; 2003

[22] Colnerud G. Ethical Conflict in teaching. Teaching and Teacher Education. 1997;**13**(6):627-635

[23] The Trade Union of Education in Finland. The Trade Union of Education in Finland. 2023. Available from: https://www.oaj.fi/en/education/ethical-principles-of-teaching/teachers-values-and-ethical-principles/#teachers-and-relationship-with-work [Accessed: December 30, 2023]

[24] Gallese V, Sinigaglia C. What is so special with embodied simulation. Trends in Cognitive Sciences. 2011;**15**(11):512-519

[25] Bourdoncle R. La Professionnalisation des enseignants : les limites d'un mythe. Revue française de pédagogie. 1993;**105**:83-119

[26] Damiano E. La competenza etica degli insegnanti. In: Xodo C, Benetton M, editors. Che cos'è la competenza? Lecce: Pensa Multimedia; 2010

[27] Fenstermacher GD. Philosophy of research on teaching: three aspects. In: Wittrock MC, editor. Handbook of Research on Teaching. New York: Macmilla; 1986. pp. 37-49

[28] Gomez PF, Damiani P. Educational and inclusive process: Towards the embodied cognition method of teaching/learning and training. In: Paloma FG, editor. Embodied Cognition. Theories and Applications in Education Science. New York: Nova Publisher Editions; 2017. pp. 201-210

[29] Jeannerod M, Pacherie E. Agency, simulation and self-identification. Mind & Language. 2004;**19**(2):113-146

[30] Newman-Norlund RD, van Schie HT, van Zuijlen AM, Bekkering H. The mirror neuron system is more activated during complementary compared with imitative action. Nature Neuroscience. 2007;**10**:817-818

[31] European Agency for Development in Special Needs Education. Profile of Inclusive Teachers. Odense, Denmark: European Agency for Development in Special Needs Education; 2012

[32] Caruana F, Borghi A. Il cervello in azione. Il Mulino: Bologna; 2016. p. 101

[33] Beraldo RMF, Ligorio MB, Barbato S. Intersubjectivity in primary and secondary education: a review study. Research Papers in Education. 2018;**33**(2):278-299

[34] Gallese V. (2007). Dai neuroni specchio alla consonanza intenzionale. Riv.Psicoanalisi, 53: 197-208; Gallese V, Fadiga L, Fogassi L, Rizzolatti G. (1996). Action recognition in the pre motor cortex. Brain 119:593-609; Rizzolatti G, Craighero L. The Mirror-Neuron System, 2004. Annual Review of Neuroscience. 2004;**27**(1):169-192

[35] World Health Organization. International Classification of Functioning, Disability, and Health: Children & Youth Version: ICF-CY. Geneva: World Health Organization; 2007

[36] Goldman AI. Mirroring, mindreading and simulation. In: Pineda J, editor. Mirror Neuron Systems: The Role of Mirroring Processes in Social Cognition. New York: Humana Press; 2009

[37] OECD. OECD Skills Strategy 2019: Skills to Shape a Better Future. Paris: OECD Publishing; 2019. DOI: 10.1787/9789264313835-en

[38] Sibilio M. La dimensione semplessa nell'agire didattico. In: Sibilio M, editor. Traiettorie non lineari nella ricerca. Nuovi scenari interdisciplinari. Lecce: Pensa Multimedia; 2012

[39] Kohler E, Keysers C, Umiltà MA, Fogassi L, Gallese V, Rizzolatti G. Hearing sounds, understanding actions: Action representation in mirror neurons. Science. 2002;**297**(5582):846-848

[40] Lechasseur K, Caux C, Dollé S, Legault A. Ethical competence: An integrative review. Nursing Ethics. 2018;**25**(6):694-706

[41] Gallese V. Corpo non mente. In: Le neuroscienze cognitive e la genesi di soggettività ed intersoggettività. Milano, Franco Angeli: Educazione Sentimentale; 2013. p. 6

[42] Brosnan SF, De Waal FB. Evolution of responses to (un)fairness. Science. 2014;**346**(6207):1-10. Article 1251776

[43] Damiani P, Minghelli V, D'Anna C, Gomez PF. L'approccio Embodied Cognition based nella formazione docenti. Un modello formativo ricorsivo per le competenze integrate del docente. Annali on - line della Didattica e della Formazione Docente. 2021;**13**(21):106-128

[44] Gomez PF, Damiani P. Manuale delle Scuole ECS. In: The Neuroeducational Approach. Brescia: Scholè; 2021

[45] Creswell JW, Clark VLP. Designing and Conducting Mixed Methods Research. Thousand Oaks, CA: Sage Publications; 2017

[46] Barnes O. Disabled People in Britain and Discrimination: A Case for Anti-discrimination Legislation. London: Hurst and Co. in association with the British Council of Organisations of Disabled People; 1991. p. 1991

[47] Pianta RC. The Student-Teacher Relationship Scale. University of Virginia. Google Scholar; 1992

[48] Spencer LM, Spencer S. Competence at Work. New York, NY: John Wiley & Sons; 1993

[49] Gomez PF, Damiani P. Cognizione corporea, competenze integrate e formazione dei docenti. I tre volti dell'Embodied Cognitive Science per una scuola inclusiva. Trento: Centro Studi Erickson; 2015

[50] Shakespeare T. Cultural representation of disabled people: Dustbins for disavowal? Disability & Society. 1994;**9**:283-299

[51] Creswell J. Research Design: Qualitative, Quantitative and Mixed Methods Approaches. London: Pearson Education Inc; 2015

[52] Berthoz A, Petit JL. Phénoménologie et physiologie de l'action. Paris: Odile Jacob; 2006

[53] Damasio A. L'erreur de Descartes: La raison des émotions. Paris: Odile Jacob; 1995