

EMOTIONAL NARRATIVES AND ARTIFICIAL INTELLIGENCE IN SUPPORT TEACHER TRAINING

NARRAZIONI EMOTIVE E INTELLIGENZA ARTIFICIALE NELLA FORMAZIONE DEL DOCENTE DI SOSTEGNO



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ABSTRACT

Unquestionably, the debate on Artificial Intelligence and its implications for the future of humanity is becoming increasingly heated, for better or for worse. Within this context, the research line proposed in this paper aims to identify the possible pedagogical implications of generative AI on teaching and learning processes, specifically about Emotional Intelligence. To explore the impact of integrating emotional intelligence into AI systems, an initial study was conducted with a group of TFA support trainees from the University of Tuscia, which highlighted opportunities and critical issues regarding the potential of inclusive teacher training.

È innegabile come il dibattito sull'Intelligenza artificiale e il suo impatto sul futuro dell'umanità si stia facendo quotidianamente sempre più acceso, nel bene e nel male. All'interno di tale scenario la pista di ricerca proposta nel presente contributo si propone di individuare i possibili risvolti formativi che l'AI generativa può produrre nei processi di insegnamento-apprendimento, nello specifico in relazione all'Intelligenza Emotiva. Allo scopo di sondare gli effetti dell'integrazione dell'intelligenza emotiva nei sistemi di intelligenza artificiale è stata condotta una prima indagine con un gruppo di corsisti del TFA sostegno dell'Università della Tuscia che ha messo in luce opportunità e criticità in ordine al potenziamento della formazione dei docenti inclusivi.

KEYWORDS

Artificial Intelligence, Chatbot, inclusion, support teacher, Emotional Intelligence

Intelligenza Artificiale, Chatbot, inclusione, docente di sostegno, Intelligenza Emotiva

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Introduction

Among the innumerable and unprecedented challenges of the present, conditioned by the state of widespread insecurity and precariousness (Badiou, 2023), the one proposed by Artificial Intelligence (henceforth AI) (Boden, 2018) tends to problematize the transition, in some ways irreversible, from post-human to transhuman posture in current social life, while striving to defend the instance of remaining human (Revelli, 2020). The shift from the human galaxy to the government of algorithms, the engine of digital systems, inevitably invests in educational contexts, generating a controversial and, in some ways, fertile revolution for education beyond the good and the bad. At present, the introduction of AI systems plays an ever-increasing role in the profound and complex anthropological mutation affecting the emotional-relational sphere, marked by the digitalization of relationships and the consequent difficulties, which significantly affect the new generations (Pontillo & Vicari, 2020; Cerulo, 2023). However, for a conscious and responsible approach to the virtual world that proposes the simulation of human intelligence (Floridi, 2022), it is essential to properly orient teachers to think and organize the school of the future also by accessing the widespread and generalized forms of AI, a hope encouraged by the Ministry of Economic Development that in the document *Proposals for an Italian Strategy for Artificial Intelligence* of July 2020, argues that

«the strategy has a strong focus on education, skills, and lifelong learning issues [...] There is a need to focus not only on improving the skills of the teaching staff already in schools but also on structurally updating school curricula».

The growing and unavoidable interest in AI cannot fail to attract the pedagogical gaze toward the functionality and productivity of the new technological-virtual frontiers with which it is important to be confronted, taking into account their capacity to become present and act didactically (Panciroli & Rivoltella, 2023). Reflecting on AI applied to education and training means defining it not only as an intelligent generative tool but as a new logic of approach to educational systems, even though there are numerous issues to be addressed for it to promote real change in educational practices (Pedró et al., 2019; Rivoltella & Rossi, 2022). On the pedagogical side, the approach to the potential of AI does not characterize it exclusively as a ready-to-use tool for simple and effective practical use but structures a new presence, a new posture in doing education, hence a new way of thinking, doing, and being within today's challenging educational contexts (Ashok et al., 2022). Beyond the usual contrasts between “apocalyptic, catastrophists” and “supporters, integrated” (Eco, 1984), the profound complexity that characterizes

the world of AI and its multiple forms seems to be able to open up unexpected and concrete educational possibilities, supporting teacher training based on emotional intelligence as an element that comes into play, in a performative manner, in contexts and relationships (Goleman, 1996) marked by human experiential fullness. The introduction of AI technologies in reshaping the role of the teacher calls for a solid commitment to initial and continuous training processes based on improving the quality of teaching-learning processes through the knowledge and active use of the available AI tools, particularly generative ones. The research illustrated in this contribution explores, in fact, the possible applications of generative AI in the training courses of support teachers, with particular attention to the development of emotional competencies, crucial for the promotion of inclusive processes. The exploratory survey was conducted on 150 trainee teachers attending the specialisation course for teaching support activities for pupils with disabilities (henceforth TFA) at the University of Tuscia who interfaced with Gemini² conversational AI in order to draw insights into emotional experiences in complex professional situations. In this training context, a primary role was played by the motivation to develop the inclusive emotional-relational competencies of future support teachers appropriately interfaced with the potential of AI, in the perspective of the elaboration and re-signification of school experiences, as active elements in the construction of everyday didactic action. The analysis of the “virtual” dialogues and feedback exchanged and received by the Chatbot, as support to understanding the meanings, emotions, and feelings experienced within the educational relationships, has highlighted opportunities and criticalities in the use of AI to enhance the training habitus of the inclusive teacher destined to face with firm responsibility (Jonas, 2002) the complex, demanding and, in some ways, conflicting challenges that the current school proposes daily, amplified even more in the future.

1. The dialectic between Emotional Intelligence and AI in initial specialized teacher training

Many questions remain to be addressed regarding the search for a balance between AI and the educational relationship, between automation and student-teacher, and student-student interaction. The integration of AI technologies at school offers the opportunity to deepen, in addition to the educational aspects that

² Google Gemini is the innovative multimodal artificial intelligence promoted by the giant Big G, a state-of-the-art system designed to flexibly generate different types of data and information, including text, audio files, video files, images and lines of code.

the AIEd (Artificial Intelligence in Education)³ has been dealing with for over thirty years (Tapalova & Zhiyenbayeva, 2022; Holmes et al., 2022), the discourse on the importance of teacher training, which, of course, should not and cannot be replaced by increasingly high-performance technology and algorithms that are not completely superimposable on human peculiarities such as intelligence, emotional intelligence and relational capacity. Investing in teacher training to ensure that they can fully exploit the potential of AI without losing sight of the broader educational objectives constitutes a profound dimension of action and knowledge, capable of nurturing the motivation and long-term perspective proper to consciously inclusive pedagogical and didactic action. More specifically, the professional profile of the specialized teacher envisages the acquisition and consolidation of plural skills of an educational-didactic, planning, methodological, organizational, and relational nature, open to the heterogeneity of different and diverse pupils who inhabit the classrooms of today's schools, always keeping alive the objective towards the realization of effective, personalized, attractive and motivating learning itineraries that take into account the abilities, interests, and difficulties of each individual. In this perspective, transversal inclusive competencies emerge, including emotional-regulatory ones, which are indispensable for facing, managing, and attempting to resolve the complexity of school situations (d'Alonzo, 2019). In taking on a decisive role in teaching-learning processes, the emotional dimension plays a significant role in students' educational success. It has considerable effects on the meaningfulness of the educational-didactic intervention aimed at all. The observation, knowledge, and governance of emotional states constitute a useful tool for measuring core affect in learning and rethinking teaching practices from an inclusive perspective. The issues relating to the function and profile of the inclusive teacher reflect the social urgency of professionally equipping this figure to operate with an adequate capacity for agency in the teacher-learner relationship, engaging in the recognition of the emotional states that occur as a result of interaction with digital tools and content. Wanting to become a conscious actor in the process of change, the support teacher is interested in creating a genuinely democratic, flexible, and adaptive school system oriented towards valuing differences and diversity, taking careful consideration of the role of the emotional variables involved in teaching-

³ The possible applications of AI in education essentially concern the design of intelligent and adaptive learning environments, capable of offering personalised services, such as AI-supported writing systems, or virtual classrooms (smart campus, smart classroom). Within these environments, it is possible to structure intelligent support for learning processes, or the selection and processing of functional learning content; the selection of teaching aids; the monitoring of cognitive processes and skill formation; the construction of brain-based learning environments; or the use of intelligent games and robots for the enhancement of cognitive activities (Chen et al., 2022).

learning processes (Maccarini, 2021). In approaching traditional didactics in a methodologically innovative, open, and transformative manner, the specialized teacher is interested in identifying new, fertile, and engaging avenues of work in the field of educational research and proposing, at the same time, future directions to pursue and investigate (Gratani, 2023). The importance of developing new competencies that integrate AI within the framework of its initial training also passes through the observation of the emotional states that take place when using the most recent applications such as the Chatbots (Mosaiyebzadeh et al., 2023) that seem to be able to intervene directly on the validity of action and teaching experiences, adapting and bringing educational practices closer to the needs of all pupils, no one excluded (Frenzel et al., 2021). The support teacher, being a transformative agent with a significant role in the dissemination of the culture of inclusion (Ianes, 2022), is called upon to explore a new way of understanding the emotional dimension in contact with the generative digital environment of AI, also to experience a deeper balance of human nature in contact with digital. The reflection and focus, as broad as possible, on the implementation of inclusive teacher training in the perspective of increasing their socio-emotional competencies (Morganti, 2018) for the construction of well-being in the classroom and the enhancement of students' emotional potential is of great impact in maximizing the dialectical potential between AI and Emotional Intelligence (henceforth EI). The central element in such an inclusive training approach concerns the dimension of life skills in the emotional-relational area included in the search for the integration of EI in AI systems as a priority premise for an inevitable revision of the training aimed at a renewed profile of the support teacher more aware and self-reflective (Sannipoli & Gaggioli, 2021). Starting from the assumption that specialized teacher training focuses attention on the promotion of collaborative, relational contexts based on welcoming, listening, and authentic interest in students' experiences, the hypothesis of the exploratory investigation highlighted the possible cognitive-affective scaffolding function represented by Gemini, albeit in the knowledge that artificial EI cannot absorb EI since the latter is capable of simulating emotions, but not of experiencing them (Yonck, 2017). The narration and reflection of the significant school episodes, of the favorable and unfavorable experiences, of the emotions felt shared and socialized with the Chatbot drew multiple thematic maps of a relational nature, where the encounter between EI and AI becomes a dialogic space and reflexive solicitation through the revisitation and reworking of empirical material based on vulnerability, discomfort, support, welcome, openness and inclusiveness. In this sense, the sustainability and dialectical challenge at the boundary between "man" and "machine" could give rise

to forms of customized support that would guide the inclusion professional to interpret and critically read the complexity of socio-emotional experiences to then rework them, share them, and make them nourishment for the quality of their own human and professional training. In the innovative process of reciprocal questioning between teachers and AI, hitherto unthought-of projections and exchanges may arise that could humanize the complexity of technology and technology, avoiding the risk of mechanizing the human being, despite being increasingly immersed in pervasive digitalization (Benanti, 2022). The activation of such processual could allow, therefore, to refine the professional training of the specialized teacher (de Anna et al., 2015), synergistically including in his identity profile new social and emotional competencies reflected, redefined, and remodeled, also thanks to the possible scaffolding function of AI generative digital devices (Xia et al., 2023). The survey illustrated in this article is therefore part of a broader educational research project for the improvement and innovation of initial and continuing teacher training, with particular reference to the use of AI-enhanced digital resources. With this in mind, an initial exploratory survey was carried out to detect teachers' opinions and reflections on the use of emotional AI in professional training and, specifically, emotional AI in the specialised training of support teachers, the latter understood as a system open to change (Pavone, 2014). The overall objective is to analyse the experiential feedback of TFA trainees with reference to the following question: can the integration of emotional AI devices in training courses improve the emotional self-awareness, emotion management and interpersonal communication of TFA trainees? This is a preliminary survey on a non-representative sample to collect data to support the implementation of subsequent and aspiring avenues of research and scientific investigation⁴.

2. Emotional narratives and AI: a field study

2.1. The context and the plan of investigation

The survey was conducted as part of the Specialization Course for Support Activities - VIII cycle, at the University of Tuscia, and involved, in participatory mode, 183 trainee trainees specializing in lower and upper secondary schools. The research plan included an initial "professional narration" activity by the students with the individual production of a short digital text (500 characters max), on the teaching platform Moodle, in response to the following assignment: «your work as

⁴ For more on training practices with conversational AI, please refer to the authors' recent paper (Montanari & Sibi, 2024).

a teacher is full of challenges and significant moments, which put you to the test both professionally and personally. Tell the story of a particularly complex school experience that involved, upset, and moved you». The delivery was accompanied by an explicit request not to include names and/or sensitive references. This first activity was realised during a workshop held during the specialization course and was proposed as an ordinary teaching activity in order to reduce any conditioning/orientation factors induced by the explication of the purposes of the survey. Only after the narratives were produced and uploaded to the teaching platform, the trainer intentionally shared the “exploratory” proposal and the purpose of the survey with the group of participants, inviting them to actively participate with the group of participants the “exploratory” proposal and the aims of the investigation. He invited the trainees to actively participate in the role of actors/evaluators of the experience of interacting with the conversational Chatbot. The trainees were then asked to share their previously produced narratives with an AI Chatbot, available online, using a standard prompt with the request to analyze the “emotional tone” of the text. The AI Chatbot to be used, i.e. Gemini, was identified and indicated by the trainer so that the tool used during the experience would be similar for everyone. In this investigation on virtual interaction with an AI device, implemented with “emotional” recognition functions, we opted exclusively for text analysis, avoiding more invasive functions of video (facial movement detection) and audio (voice processing) analysis, since the need to use online platforms raised questions related to privacy and the protection of personal data. The students’ impressions and reflections following the virtual “emotional” interaction with the AI Chatbot were returned through a questionnaire with open questions. This to avoid pre-established response categories in the empirical-exploratory phase of the survey (Tab. 1).

a) Does the Chatbot’s emotional analysis of your narrative reflect your impressions and reactions?
b) The analysis brought to light emotions and experiences that you had not considered?
c) Do you think that the analysis of the emotional tone of your story was useful to better understand your professional experience?
d) Do you think that this type of experience with emotional AI can be an added value for your training?
e) Can emotional AI play a role in students’ inclusion processes?

Table 1: Questionnaire items.

Questions a) and b) were planned to verify if and how the experience induced processes of reflection and emotional-relational self-analysis and if the participants showed willingness to confront their emotions and with the feedback provided by the device. The evaluation of the interpretative “effectiveness” of the Chatbot was not an objective of interest of the survey and the data were not analysed in this perspective. The questions c) d) and e) were intended to bring out participants’ perceptions and attitudes about the use of emotional AI devices for the professional training of support teachers in favour of school inclusion processes. The last question aimed to get trainees’ opinions on the possibility of using emotional AI in the classroom environment to create more inclusive learning experiences for all students. The feedback of the participants, collected through the questionnaire, and the reflections that emerged during the subsequent classroom debate, in the presence of the trainers-researchers, provided the survey data.

2.2. Teachers’ participation

The trainee teachers involved in the experience have generally shown openness and willingness to engage with AI and the feedback received, even in cases where the AI’s analysis has brought to light unexpected emotions or experiences. In the answers (181) related to question a) *Does the Chatbot’s “emotional” analysis of your narrative reflect your impressions and reactions? Yes, why? No, why?*, except two cases, the participants claim to fully share the analyses produced by the Chatbot as «it perfectly centred the emotions felt, capturing the subtlest nuances, details and implicit variations of mood, so much so that I went back in time» (id. 37); «he captured my sensations and emotions during the narrated experience, as I actually experienced that particularly emotional moment as a moment of deep connection with the student» (id. 90); «The emotions were interpreted correctly, so much so that reading them all together I was very moved» (id. 27); «The chatbot captured the feelings related to my experience: frustration, worry, motivation and interest» (id. 95); «It picked up on all the emotional aspects but dwelt too much on the “initial mistrust” as it was a springboard and stimulus for the student to react, in any case she also grasped the aspect of hope and motivation» (id. 164); «It indicated that the emotional tone of my story was predominantly melancholic and bitter, with undertones of anger and frustration. I find the analysis to be perfectly lucid and timely» (id. 177). Even the negative responses were motivated «No, because it says that I do not express particular emotions, while it is the other way around» (id. 71); «He describes me as if I had not understood the girl’s initial fragility, which is not true» (id. 42). The answers to question b) *Did the analysis bring to light emotions and experiences that you had not considered? Which ones?*

have a higher variability. In 73 cases, participants replied that the emotional-textual analysis did not highlight any new or unexpected aspects as «the chatbot was accurate in describing what I really felt» (id. 44); «it brought to light emotions and experiences that I had already considered» (id. 118); «he merely pointed out and analyzed more clearly what my perplexities and concerns were» (id. 34); «The analysis confirmed my emotions and experiences during this experience. However, it made me think more about the importance of being proactive and trying to understand the difficulties of the students» (id. 55). The 110 affirmative answers to question b) contain, in all cases, explicit references to emotions, feelings and perceptions that had not been focused on by the participants before the comparison with the Chatbot. Textual emotional analysis highlighted «the doubts and uncertainty I felt about how to react to the student's behavior» (id. 17); «the sense of uneasiness which I had not perceived, now I have become aware of it» (id. 88); «my sense of helplessness in the face of the situation and my lack of tools to help the student» (id. 91); «frustration with colleagues, an aspect that I did not think was so predominant» (id. 117); «I felt helpless in the face of the situation, but I did not realize how much this feeling affected my ability to intervene» (id. 127); «I had not really considered the feeling of despondency I felt on that first day of work» (id. 133); «I realized how emotions can negatively affect communication and collaboration» (id. 141); «the analysis highlighted some shortcomings in my narrative. In fact, I had not considered some important sensory aspects» (id. 165).

2.3. The opinions and evaluations of the “investigators”

Do you think that the analysis of the emotional tone of your story was useful to better understand your professional experience?

Referring to this question, 168 trainees answered positively (91%), 9 answered negatively (5%) and in 6 cases (3%) partially positive/negative answers were given. Of the positive replies, however, in 88 cases the reply was not accompanied by explicit reasons. In 80 cases, however, participants said they found the experience useful as «it was an exercise that helped me grow as a professional. It has allowed me to gain greater awareness of myself and my emotions, to better understand relationship dynamics in the workplace, and to develop coping strategies to handle difficult situations. In addition, the analysis has provided me with a new tool to reflect on my professional experiences and to draw valuable lessons from them» (id. 32); «It gave me the opportunity to reflect in a more detached way on my own experience» (id. 37); «It helped me better understand my emotions and how they have influenced my professional experience» (id. 38); «It allowed me to reflect on

this experience in a more structured way and to identify the salient points, it made me better understand the impact my actions had on the pupil» (id. 55); «It helped me to do self-analysis, stimulated metacognitive abilities» (id. 95); «it was useful to understand my professional experience, since, by reading the analysis, I reflected more deeply on what I have experienced in the past and how I was able to use my moment of suffering to help another person in difficulty» (id.124). In cases where negative or partially negative answers were given, no reasons were made explicit except limited to expressions such as «no, you identified the emotions I actually felt» (id. 96); «no, the analysis was too negative» (id. 110); «no, it was only partially useful» (id. 101).

Do you think that this type of experience with emotional AI can be an added value for your training?

Also to this question, 168 trainees answered positively, 4 gave negative answers, and 11 partially negative/positive answers. The positive responses, except in 4 cases, were explicitly motivated: «I believe that AI is a good support to activate thinking in a more divergent way» (id. 13); «the added value is precisely the external point of view as an evaluative tool, applicable both to my experiences and in a future didactic key» (id.19); «I believe that emotional AI has the potential to revolutionize vocational training. Providing objective and personalized feedback, helping to develop self-awareness and emotional skills, and offering an experiential learning environment» (id. 32); «absolutely, for self-evaluation as a teacher and above all to analyze my critical points that can be made explicit and emerge better» (id. 45); «it can be a tool to get to know ourselves better and to observe ourselves from the outside, to help us see ourselves as others see us rather than as we want to see ourselves» (id. 81); «it constitutes an added value because it allows one to explore aspects of one's own experience that may escape a first analysis» (id. 97); «AI can help me develop my ability to communicate empathetically. This will allow me to build stronger and more meaningful relationships with the people with whom I will interact» (id. 127). The negative and partially negative responses report similar motivations: «it could be an added value even if AI scares me» (id. 35); «I believe that it can be a useful tool, but it must be considered that the human factor, the one that moves emotions, is missing» (id. 116); «I have always looked at AI with suspicion, perhaps because it is incapable of using it, but I am changing my mind about its use, even if I believe that it should be used consciously by both teachers and students» (id. 84).

Can emotional AI play a role in students' inclusion processes?

The replies to this question were predominantly positive (170) with only one negative answer and 12 uncertain answers. The positive responses report explicit

and articulated motivations: «it can certainly be a valid tool to be used in inclusion processes also to make students with disabilities and difficulties feel accepted and included in the class group» (id. 2); «It can help us with personalized and individualized teaching» (id. 9); «Yes, because it can help students understand feelings and emotions and develops the personal emotional intelligence that is the basis of learning» (id. 15); «It can help us teachers to understand the emotions behind what students write and to understand them better» (id. 26); «could be used to tailor teaching materials and activities to the individual needs of each student, taking into account their learning style and emotional state» (id. 32); «It could help kids read other people's emotions and their peers' reactions to their actions to exercise empathic skills, especially in subjects who have problems in reading emotions, such as autistic children» (id. 57); «I believe that it can support the teacher in the development of personalized and inclusive teaching activities» (id. 86); «can involve all students without distinction of "modes of operation", after all, the ability to use AI is to know how to ask the right questions» (id. 117). The answers classified as "uncertain" express overall attitudes of caution regarding the AI application effects: «I don't know, I would like to test it in the field» (id. 64); «I don't know, I think we should try and understand the effects on different subjects» (id. 51); «It could but under the supervision and guidance of the teacher» (id. 117). Also among the reasons in support of the positive responses, opinions and reflections emerge with significant frequency relating to the privacy of students, the need for control and monitoring by teachers, the risk of improper use by the school «could be used to identify students at risk of dropping out of school» (id. 109), the reliability of devices «emotional AI is still a technology under development and is not always reliable» (id. 91), the need for «ethical guidelines for the use of emotional AI in the school environment» (id. 111), the opportunity to have indications from research on the use of AI in the school environment «it would be appropriate to test and experiment it in the field» (id. 64), the need to learn more about these devices and their potential «could bring great results, provided that one knows these tools well and knows how to use them correctly» (id. 46). The incidence of these "considerations" concerns 30% of the total responses.

2.4. Analysis of responses and categorization of emerging concepts

The answers formulated with reference to questions a) and b) were analyzed with the sole aim of verifying the 'significance' of the experience in terms of commitment and involvement by the participants. In this perspective, the analysis of the text-feedback has allowed to identify some prevailing indicators. Detailed

and thoughtful answers: participants provided detailed and congruous answers overall, demonstrating that they have thought carefully about the Chatbot's analysis and are interested in virtual interaction. Openness to discussion: participants openly discussed aspects of their narrative, demonstrating that they were willing to receive feedback and confront their emotions. Emotional involvement: participants, in many cases, have shown emotional reactions to the AI's analysis, even when it has brought to light unexpected emotions or experiences. However, the significant percentage of negative responses (40%) to question b) Did the analysis bring to light emotions and experiences that you had not considered? What?, accompanied by motivations such as «they were experiences and emotions that I had already fully considered», could indicate an implicit resistance to recognizing emotional experiences not considered, or more generally, to confronting the Chatbot, especially in cases where the same subjects who answered in a completely positive way to the question a) then provided negative or partially negative answers to questions b) c) and d). This condition is found with an incidence of about 8% (15 cases) on the entire sample and we believe that it can indicate one of the reference lines for subsequent research. The analysis of the answers to questions c), d), e) was carried out with reference to the Grounded Theory (henceforth GT) approach (Clarke, 2005; Tarozzi, 2008). GT is a qualitative research method that aims to develop theories from data collected in the field. It is an inductive approach, in which researchers do not start from pre-established hypotheses but let the data themselves suggest models, concepts, and relationships, especially concerning phenomena that are little studied or for which there are no established theories yet. The method does not allow the results to be generalized, especially starting from unrepresentative samples, but it is useful for exploring the experiences and opinions of specific targets. In this study, the qualitative approach is motivated by the lack of specific reference studies and contextually by the nature of the survey objectives:

- ✓ analyze the attitudes and reflections of future teachers regarding possible applications of emotional AI in professional training and inclusive activity with students
- ✓ identify baselines for further systematic research.

With reference to this qualitative approach, the contents of the answers to questions c), d), e) have been codified and divided into thematic categories, identified starting from the concepts and evaluations expressed by the participants themselves, in order to identify the emerging aspects. The order of the categories indicates the degree of relevance. Referring to question (c), almost all trainees (91%) said that emotional tone analysis was helpful in better understanding their

professional experience. With reference to the motivations, although only 45% (80) of the affirmative answers and 50% (7) of the negative/partially negative answers were made available, the following thematic categories were identified:

- ✓ Identifying, acknowledging, and understanding your emotions
- ✓ Develop coping strategies to manage negative emotions
- ✓ Gain greater self-awareness
- ✓ Critically reflect on one's own experiences
- ✓ Improve interpersonal communication

Regarding opinions and evaluations related to question d), also in this case, 91% of teachers (168) recognized the potential of emotional AI for their professional training, and specifically for:

- ✓ Provide personalized feedback to their experiences
- ✓ Promote critical reflection and experiential learning
- ✓ Help them develop emotional self-awareness and emotional regulation skills
- ✓ Provide them with guidance and tools to create more inclusive and engaging learning environments

The reasons given in support of negative and partially negative responses, equal to 8% (15), indicate common opinions of distrust and caution towards the use of AI in teachers' training. The trainees' reflections and opinions related to question e), about the possible role of emotional AI in school inclusion, were made explicit by all participants, in 93% (170) of the positive responses and in 7% (13) of the uncertain answers. Through the analysis of the contents, the following reference categories were identified:

- ✓ Personalize student learning
- ✓ Identify and overcome emotional barriers that hinder learning
- ✓ Promoting a positive climate in the classroom
- ✓ Provide personalized feedback to students
- ✓ Help students identify, recognize, and express their emotions
- ✓ Create inclusive and welcoming learning environments
- ✓ Supporting pupils with cognitive disabilities or autism spectrum

The opinions and reflections about the risks and uncertainties related to the introduction of emotional AI in school contexts, detected in 30% of the total responses to question e), indicated further relevant categories:

- ✓ Ensuring privacy and security for students
- ✓ Equipping schools with ethical regulations
- ✓ Promoting experimental research on the implications of AI in schools
- ✓ Training teachers in the appropriate and effective use of AI technologies

3. Conclusions and future prospects

The trainees' active participation to the experience with emotional AI Chatbot and the analysis of the answers and reflections, that were returned through the questionnaire, provide data to support the use of emotional AI and its opportunities in the professional development of support teachers, in the perspective of a new vision of inclusive training of all teachers, both curricular and specialised (Bocci et al., 2021). The participants-researchers said that the experience with emotional AI improved their understanding of their professional experiences, helped them identify and recognize their emotions, and improve interpersonal communication. The trainees also highlighted and identified the potential of AI in promoting their professional development, in the name of "another support is possible" (Canevaro & Ianes, 2019). In this perspective, the following aspects were highlighted: providing personalized feedback to their experiences, promoting critical reflection and experiential learning, helping them develop emotional self-awareness and emotional regulation skills, and providing them with guidance and tools to create more inclusive and engaging learning environments. On the other hand, however, the significant number of negative responses to the question *Did the analysis bring to light emotions and experiences that you had not considered? What?*, and the lack of motivation in about 50% of the positive responses to the question *Do you think that the analysis of the emotional tone of your story was useful to better understand your professional experience?*, could indicate an implicit resistance, on the part of some trainees, to recognize emotional experiences not considered, or more generally, to confront a Chatbot "emotionally". These data require further specific investigations into the emotional impact produced by the experience of professional engagement with an emotional AI. About the potential of AI for inclusive activities, the survey results indicate that emotional AI could play a significant role in student inclusion, to personalise learning, help teachers identify emotional barriers to participation and learning, support students' emotional development, create more inclusive environments that are sustainable for all, and support in particular pupils with cognitive disabilities and autistic spectrum. At the same time, however, the participants highlighted that more research is needed to fully explore these possibilities, in the agentic perspective of the professional development of support teachers that calls for a posture essentially aimed at research and recursive reflexivity in action (Mortari, 2011). At the same time, however, it is important to use emotional AI responsibly and ethically, considering the implications for student privacy and security, and it is equally important to properly train teachers, so that they can consciously and effectively integrate AI resources into school activities. The results of the exploratory investigation confirm, therefore, the opportunity and

need to promote future systematic and experimental research to fully understand the impact of emotional intelligence on the competences, knowledge, skills useful for the improvement of the professional identity of inclusive teachers (Watkins, 2012), not only with reference to support teachers, and the promotion of inclusive school and social processes (Sharma & Nuttal, 2014).

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