EMOTIONAL COMPETENCE IN PRE-SERVICE SUPPORT TEACHER EDUCATION: TOWARDS DIGITAL AFFECTIVE LITERACY

Vincenza Barra[1]
Kore University of Enna
vincenza.barra@unikore.it

Antonio Giannone
Kore University of Enna
antonio.giannone@unikore.it

Enza Manila Raimondo
Kore University of Enna
enzamanila.raimondo@unikore.it

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ABSTRACT
Schools increasingly require teachers to combine inclusive pedagogical competence with the capacity to manage emotionally demanding and digitally mediated interactions. This exploratory-descriptive study examines emotional competence as a component of inclusive professionalism among 619 Italian pre-service and in-service support teachers. Participants completed self-report measures of perceived stress, teacher self-efficacy, emotional awareness and regulation, cognitive reappraisal, expressive suppression, motivation, and professional emotional competencies related to stress management, goal planning, social skills and contextual understanding. Descriptive statistics, reliability analyses, exploratory factor analyses, Pearson correlations and group comparisons were conducted. All measures showed acceptable to excellent internal consistency (Cronbach's α = .73–.97). Perceived stress was negatively associated with stress-management competence (r = −.45), emotional awareness and regulation (r = −.29), and cognitive reappraisal (r = −.20). Cognitive reappraisal was positively related to emotional awareness (r = .48), whereas expressive suppression showed a weak positive association with stress and a negative association with social skills. No significant differences in perceived stress emerged across school levels or employment status. The findings support the role of emotional competence as a professional resource and are discussed through the concept of Digital Affective Literacy: the capacity to recognize, interpret and regulate affective and relational processes in hybrid and AI-mediated educational environments. The construct is proposed as a formative framework rather than as a variable directly measured in the study.

KEYWORDS
Emotional competence; digital affective literacy; use, inclusive teacher education.

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A. Giannone wrote sections 3.4, 4 and 5.2.
E. M. Raimondo authored sections 5.5 and 6.2.

1. Introduction

Schools are required to respond to diverse learning needs while integrating digital technologies into everyday teaching. These changes are particularly relevant to teachers preparing for specialized support roles. Their work extends beyond adapting activities for an individual student and includes collaboration with colleagues and families, interpretation of complex educational situations, management of relational tensions and participation in shared inclusive planning.

School inclusion cannot be reduced to the presence of students with disabilities in mainstream classrooms or to the provision of individualized measures. It depends on the capacity of the school community to identify barriers, mobilize resources and assume shared responsibility for participation and learning. Within this perspective, the support teacher is not exclusively assigned to one learner but contributes to the inclusive development of the whole classroom through observation, co-planning, mediation and collaboration with curricular teachers and other professionals (Aiello et al., 2014; Cottini, 2017; D'Alonzo, 2016).

Such responsibilities require a professional profile that combines pedagogical and methodological knowledge with the ability to interpret events as they unfold. Support teachers frequently work in situations involving disability, neurodiversity, communication difficulties, challenging behaviour and personal or family vulnerability. Their competence is expressed not only in what they know, but also in how they respond to uncertainty, regulate their reactions and sustain relationships within complex educational settings.

Emotional competence is a central component of this professional profile. It includes the ability to recognize and understand one's emotions, interpret the emotional expressions of others and regulate affective responses in relation to educational aims. Emotions influence attention, judgement, motivation and classroom behaviour. They also shape teacher–student relationships and the meanings attributed to events occurring during teaching. When emotional demands are prolonged or perceived as exceeding available coping resources, they may contribute to stress, disengagement and reduced professional well-being (Aldrup et al., 2024; Calandri et al., 2025; Jennings & Greenberg, 2009).

For support teachers, emotional work becomes especially evident in situations involving behavioural crises, communication barriers, conflict or uncertainty. Emotion regulation cannot be equated with concealing feelings or maintaining an appearance of constant control. It requires teachers to recognize emotional activation, understand its possible sources and use this awareness to guide observation, communication and decision-making. Emotional competence is therefore both an individual resource and a professional capacity mediating the relationship between the teacher, the learner and the educational context.

This interpretation is consistent with studies on teacher self-efficacy and inclusion. Teachers who perceive themselves as capable of responding to learner variability and managing complex classroom situations tend to express more positive attitudes towards inclusion and greater willingness to adopt inclusive practices (Aiello et al., 2016, 2017). Self-efficacy, however, should not be treated as a fixed personal characteristic. It develops through experience, feedback, reflective practice and participation in training contexts that connect theoretical knowledge with educational situations.

Initial teacher education plays a decisive role in this process. Training should not be limited to the transmission of procedures or techniques. Future teachers need opportunities to examine their beliefs, reflect on critical incidents and recognize how emotional and contextual factors influence professional judgement. Muscarà and Messina (2014) showed that teachers' perceptions of competence and of the educational usefulness of technologies are related to the training models through which digital practices are introduced. Professional preparation should therefore integrate operational knowledge with reflection on pedagogical purposes and professional responsibility.

The emotional dimension of teaching is also connected to its embodied character. Educational interaction takes place through voice, posture, gesture, movement, distance and the organization of space. Teachers interpret classroom events through explicit verbal information and bodily-relational cues. From the perspective of embodied cognition, emotion, cognition and action develop through continuous interaction between the person and the environment (Gomez Paloma & Damiani, 2017; Gomez Paloma et al., 2016; Sibilio, 2014).

Digital technologies modify the conditions under which these cues are perceived. Learning platforms, videoconferencing systems, automated feedback tools and generative artificial intelligence increasingly mediate communication, assessment and access to content. These technologies can support accessibility and participation, but they may also filter or remove some of the signals on which face-to-face interaction relies. Artificial intelligence can assist teachers in preparing materials, differentiating

activities and generating feedback, but it cannot assume the pedagogical responsibility involved in interpreting vulnerability, relational tension or emotional distress (Cittadini et al., 2024).

For this reason, digital competence cannot be reduced to technical proficiency. Teachers also need to understand how emotions are communicated or concealed in technologically mediated settings, how digital systems influence participation and how their own emotional reactions affect professional choices. This broader set of capacities may be described as Digital Affective Literacy.

In this study, Digital Affective Literacy refers to teachers' capacity to recognize, interpret and regulate emotional and relational processes within digital, hybrid and AI-mediated educational environments. It integrates emotional awareness, regulation, contextual interpretation, social competence and critical reflection on technology. The concept stresses the teacher's responsibility to preserve the relational, embodied and ethical dimensions of education when interaction is partly mediated by digital tools.

This perspective is particularly relevant to support-teacher education. A digital resource may facilitate access for one student while creating overload, isolation or frustration for another. Its inclusive value depends on how it interacts with the learner's functioning, relationships and environment. Such contextual attention is also consistent with the life-project perspective, which connects education with participation, autonomy, self-determination and future opportunities (Cottini, 2017; Giaconi & Del Bianco, 2025).

The present exploratory-descriptive study examines perceived stress, teacher self-efficacy, emotional awareness and regulation, cognitive reappraisal, expressive suppression, motivation and four dimensions of professional emotional competence in 619 Italian pre-service and in-service support teachers. It aims to describe participants' profiles, examine the reliability and factorial organization of the measures, and explore relationships among the investigated dimensions. Digital Affective Literacy is not treated as a variable directly measured through the questionnaire, but as a theoretical and formative framework through which the findings are interpreted.

2. Emotional Competence, Inclusive Professionalism and Digital Mediation

2.1 Emotional regulation, stress and professional functioning

Teaching involves continuous emotional work. Teachers manage uncertainty, expectations, interpersonal tensions and the affective consequences of students' participation or difficulty. Emotional competence allows them to recognise these experiences, understand their meaning and select responses that remain consistent with educational goals. It includes emotional awareness, understanding, acceptance and regulation and should not be identified with the absence of negative emotions. Frustration, concern and uncertainty are part of educational practice; what matters is the teacher's capacity to recognise and process them.

Emotion regulation refers to the processes through which individuals influence the emotions they experience and express (Gross & John, 2003). Cognitive reappraisal involves changing the interpretation of a situation before the emotional response is fully developed, whereas expressive

suppression consists in inhibiting the outward expression of an emotion after it has emerged. Research generally associates reappraisal with better interpersonal functioning and lower emotional exhaustion. Suppression may be useful in specific situations, but habitual reliance on it can limit emotional processing and relational authenticity (Aldrup et al., 2024; Gross & John, 2003).

Perceived stress concerns the extent to which demands are appraised as unpredictable, uncontrollable or exceeding available resources (Cohen et al., 1983). Its intensity does not depend exclusively on the number of difficulties encountered: the same situation may be experienced differently according to perceived competence, emotional resources, social support and organizational conditions. Support teachers may face stress linked to challenging behaviour, educational fragility, collaboration with families, unclear role boundaries and the need to coordinate different perspectives. These demands are intensified when responsibility for inclusion is delegated almost entirely to the specialized teacher. Inclusive responsibility must instead be shared by the whole teaching team (Aiello et al., 2014; Cottini, 2017).

Emotional competence may act as a protective resource by helping teachers recognize activation, reinterpret situations and select more adaptive responses. Training programmes focused on emotional competence have shown promising effects among pre-service teachers, particularly when they include case analysis, reflection and practice rather than generic prescriptions for emotional control (Schelhorn et al., 2023).

2.2 Self-efficacy, motivation and inclusive professionalism

Teacher self-efficacy concerns beliefs about the ability to organise and perform the actions required to achieve educational goals, including in situations involving difficulty or limited student engagement (Tschannen-Moran & Woolfolk Hoy, 2001). These beliefs influence persistence, willingness to innovate and interpretation of setbacks. Within inclusive education, self-efficacy has been associated with attitudes towards inclusion and perceived capacity to address learner variability (Aiello et al., 2016, 2017).

Motivation is similarly relevant. According to self-determination theory, professional engagement may be supported by autonomous reasons, such as personal interest and identification with educational goals, or by controlled reasons linked to external expectations and pressures (Deci & Ryan, 2000). In support teaching, autonomous motivation may arise from commitment to inclusion and from the perceived social value of the role. Organisational instability, limited recognition and repeated exposure to emotionally demanding situations may weaken professional engagement.

Teacher education should connect self-efficacy and motivation with observable competencies and reflective awareness. Muscarà and Messina (2014) underline that perceptions of competence are related to the models through which teachers are trained. Case studies, simulation, observation and discussion of critical incidents can help future teachers recognise both their resources and the limits of their current professional repertoire.

The support teacher's role is systemic. Although assigned to a class because of the presence of a student with a disability, the specialised teacher shares responsibility for all students and contributes to planning, assessment and

classroom organisation. Inclusive professionalism requires attention not only to the learner but also to teaching methods, materials, time, space, peer relationships and adult expectations. This orientation is consistent with evidence-informed special education and didactic differentiation (Cottini, 2017; D'Alonzo, 2016), as well as with the life-project perspective centred on autonomy, participation and quality of life (Giaconi & Del Bianco, 2025).

Emotional competence contributes to this role because support teachers mediate among students, families, curricular teachers and other professionals. Listening, communication, stress management, social skills, goal planning and contextual understanding are therefore part of inclusive professional competence rather than secondary personal characteristics.

2.3 Embodied competence and Digital Affective Literacy

Emotional competence is not solely a cognitive process. Teachers experience and interpret educational situations through voice, breathing, movement, posture and spatial positioning. The body connects perception, emotion and possibilities for action. Embodied cognition therefore provides a framework for understanding the body as a cognitive, affective and relational mediator (Gomez Paloma & Damiani, 2017; Gomez Paloma et al., 2016; Sibilio, 2014).

This perspective is relevant to inclusive teaching because students may communicate engagement, discomfort or overload through channels that are not fully verbal. Changes in posture, movement, silence or withdrawal can carry educationally significant information, especially for learners with communication differences or sensory sensitivities. Such signals do not have a fixed meaning and must be considered in relation to the person, task and context.

Digital mediation alters the visibility of these signals. In online environments, teachers may have access to voice and facial expression but limited information about posture, movement and the physical setting. Silence may indicate reflection, disengagement, technical problems or discomfort. Hybrid environments create further complexity because participation occurs across different spaces and channels.

Artificial intelligence can support preparation, personalisation and feedback, but it cannot replace situated pedagogical judgement. AI systems generate outputs from patterns in data; they do not possess responsibility for educational consequences or a full understanding of the learner's relational history. Digital Affective Literacy is therefore proposed as a framework comprising emotional awareness, emotion regulation, relational interpretation, contextual sensitivity and critical technological awareness.

These dimensions are not presented as a validated psychometric model. They offer a theoretical framework through which the emotional competencies investigated in this study can be connected to hybrid and AI-mediated education. Support-teacher education can foster them through case analysis, simulation, reflective writing and critical examination of AI-generated outputs. The aim is not to oppose technology, but to ensure that its use remains consistent with inclusive, relational and pedagogical aims.

3. Method

3.1 Study design and participants

Perceived professional social-emotional competence was assessed through a 24-item questionnaire adapted from Collie's conceptual framework of perceived social-emotional competence (Collie, 2020, 2021, 2022). The

questionnaire assessed four domains relevant to professional functioning: stress management, goal planning, social skills, and contextual understanding. Each domain comprised six items rated on a five-point Likert scale. Since the adapted version differs from Collie's original instrument, its factorial structure and internal consistency were examined exploratorily in the present sample.

The study followed a quantitative, cross-sectional and exploratory-descriptive design. Data were collected from 619 Italian participants attending a specialized support-teacher education programme or already working in support-teaching roles. Participants ranged in age from 20 to 63 years (M = 37.7, SD = 9.7). Women represented 78.7% of the sample. Upper- and lower-secondary pathways were the most represented, followed by primary school. More than half of the respondents were awaiting placement, professional qualification or a competitive examination, whereas 43.6% were working as non-tenured teachers. Only 1.9% held a permanent teaching position.

Table 1. *Socio-demographic and professional characteristics of the sample (N = 619)*

Variable	Category	n	%
Gender	Women	487	78.7
	Men	132	21.3
School level	Upper secondary	220	35.5
	Lower secondary	216	34.9
	Primary	179	28.9
	Pre-primary	4	0.6
Employment status	Awaiting placement/qualification	337	54.4
	Non-tenured	270	43.6
	Tenured	12	1.9
Qualification	Master's degree/PhD	430	69.5
	Upper-secondary diploma	146	23.6
	Bachelor's degree	42	6.8
	Lower-secondary qualification	1	0.2
Children	No	334	54.0
	Yes	285	46.0

3.2 Measures

Perceived stress was assessed through the 10-item Perceived Stress Scale (PSS-10; Cohen et al., 1983), rated from 0 (never) to 4 (very often), with total scores ranging from 0 to 40. Teacher self-efficacy was measured through the 24-item Teacher Sense of Efficacy Scale (TSES; Tschannen-Moran & Woolfolk Hoy, 2001), rated on a five-point scale. Because the exploratory analysis supported a predominantly unidimensional structure, a global mean score was used.

Emotional awareness and regulation were assessed through the 27-item Skalen zum Erleben von Emotionen (SEK-27; Berking & Znoj, 2008), which covers awareness, clarity, understanding, acceptance, tolerance and active

emotional management. Cognitive reappraisal and expressive suppression were assessed using the 10-item Emotion Regulation Questionnaire (ERQ; Gross & John, 2003), rated on a seven-point scale.

Motivation was measured through a 15-item questionnaire developed within the framework of self-determination theory (Deci & Ryan, 2000). A 24-item Professional Emotional Competence Scale assessed four six-item dimensions: stress management, goal planning, social skills and contextual understanding. Responses were recorded on a five-point scale. Socio-demographic information included gender, age, school level, qualification, employment status, marital status and presence of children.

3.3 Procedure

Data were collected through an anonymous online questionnaire administered using Google Forms. Participants received information about the aims of the study, the voluntary nature of participation and the confidential treatment of data before completing the survey. No directly identifying information was collected and analyses were conducted on aggregated data.

3.4 Data analysis

Descriptive statistics were calculated for all variables. Internal consistency was estimated through Cronbach's alpha. The internal organisation of multi-item measures was examined through principal component analysis with varimax rotation; the number of components was established through Horn's parallel analysis, comparing observed eigenvalues with the 95th percentile obtained from 200 randomly permuted datasets. Pearson

correlations examined relationships among variables. Independent-samples t tests and one-way analyses of variance were used for group comparisons, with statistical significance set at $p < .05$. Analyses were performed using pandas, NumPy, SciPy and scikit-learn.

4. Results

4.1 Descriptive statistics and internal consistency

Perceived stress showed a mean score of 20.50 on a theoretical range from 0 to 40. Teacher self-efficacy, emotional awareness and the four dimensions of professional emotional competence were located in the upper half of their response ranges. Contextual understanding obtained the highest mean score, followed by goal planning and social skills. Stress management showed a comparatively lower mean, although it remained above the midpoint. Cognitive reappraisal was reported more frequently than expressive suppression.

***Table 2**. Descriptive statistics for the study variables (N = 619)*

Variable	Range	M	SD	Min	Max
Perceived stress	0–40	20.50	6.32	0.00	38.00
Teacher self-efficacy	1–5	4.08	0.62	1.79	5.00
Emotional awareness/regulation	1–5	3.65	0.64	1.41	5.00
Stress management	1–5	3.52	0.73	1.33	5.00
Goal planning	1–5	4.08	0.70	1.17	5.00

Social skills	1–5	3.99	0.67	1.67	5.00
Contextual understanding	1–5	4.15	0.62	2.00	5.00
Cognitive reappraisal	1–7	5.20	1.08	1.67	7.00
Expressive suppression	1–7	3.56	1.31	1.00	7.00
Motivation to teach	1–7	4.37	0.95	1.67	7.00

All measures showed acceptable to excellent internal consistency. Cronbach's alpha coefficients ranged from .73 for expressive suppression to .97 for teacher self-efficacy. The four professional emotional-competence dimensions showed coefficients between .82 and .89.

Table 3. *Internal consistency of the study measures*

Measure	Items	Cronbach's α
PSS-10	10	.85
TSES	24	.97
SEK-27	27	.93
ERQ – Reappraisal	6	.81
ERQ – Suppression	4	.73
Stress management	6	.85
Goal planning	6	.89
Social skills	6	.82
Contextual understanding	6	.89
Motivation to teach	15	.86

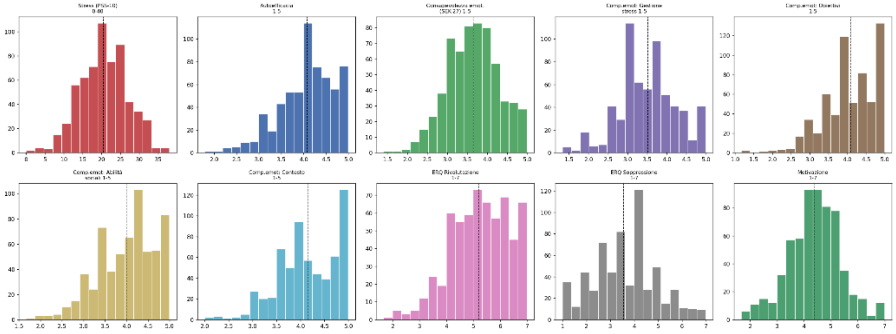


Figure 1. *Distribution of composite scores. The dashed line indicates the sample mean for each variable.*

4.2 Exploratory factor structure

Parallel analysis and principal component analysis provided different factorial solutions across instruments. The TSES showed a predominantly unidimensional structure: one component exceeded the parallel-analysis threshold and accounted for 60.1% of the variance, with item loadings from .68 to .84. The ERQ reproduced the expected two-factor structure, with cognitive reappraisal and expressive suppression jointly explaining 54.0% of the variance.

The SEK-27 produced a four-component solution accounting for 55.2% of the variance. This was more parsimonious than the original nine-domain organisation and broadly reflected emotional awareness and understanding, acceptance and tolerance, attention to emotional experience, and active regulation. The Professional Emotional Competence Scale showed a clear four-factor solution corresponding to stress management, goal planning, social skills and contextual understanding; the components accounted for 62.3% of the variance. The motivation scale produced three components accounting for 74.3% of the variance.

Table 4. *Exploratory factorial structure of the multi-item measures*

Measure	Factors	Variance	Interpretation
Teacher self-efficacy	1	60.1%	Global self-efficacy
ERQ	2	54.0%	Reappraisal; suppression
SEK-27	4	55.2%	Broad emotional domains
Professional emotional competence	4	62.3%	Stress; goals; social skills; context
Motivation	3	74.3%	Autonomous; introjected; external/amotivation

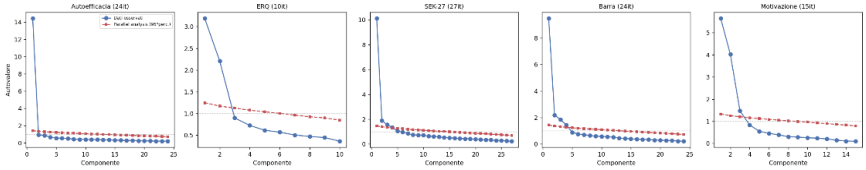


Figure 2. *Scree plots for the multi-item measures. Observed eigenvalues are compared with parallel-analysis thresholds.*

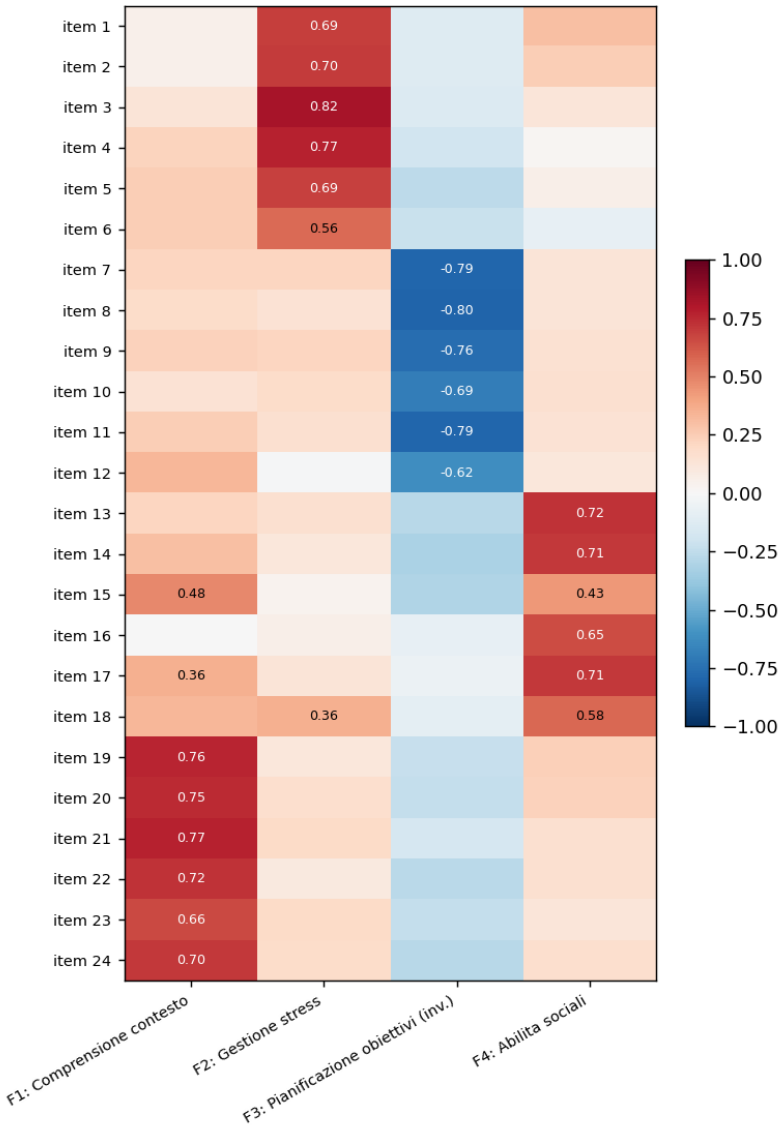


Figure 3. *Rotated factor loadings of the 24-item Professional Emotional Competence Scale.*

4.3 Correlations among the study variables

Perceived stress was negatively related to almost all emotional and professional resources examined. The strongest association was observed with stress-management competence (r = −.45). Perceived stress was also negatively correlated with emotional awareness and regulation (r = −.29), cognitive reappraisal (r = −.20) and teacher self-efficacy (r = −.14), whereas its association with motivation was negligible (r = −.06).

Expressive suppression was the only emotion-regulation variable showing a positive, although weak, association with perceived stress (r = .08), and it was negatively associated with social skills (r = −.20). Cognitive reappraisal was positively associated with emotional awareness and regulation (r = .48). The four professional emotional-competence dimensions were moderately interrelated (approximately r = .44–.61) and positively related to the SEK-27 score (approximately r = .38–.47).

Table 5. *Selected correlations among the study variables*

Variable pair	r
Perceived stress – Stress management	−.45
Perceived stress – Emotional awareness/regulation	−.29
Perceived stress – Cognitive reappraisal	−.20
Perceived stress – Teacher self-efficacy	−.14
Perceived stress – Motivation	−.06
Perceived stress – Expressive suppression	.08
Reappraisal – Emotional awareness/regulation	.48
Suppression – Social skills	−.20

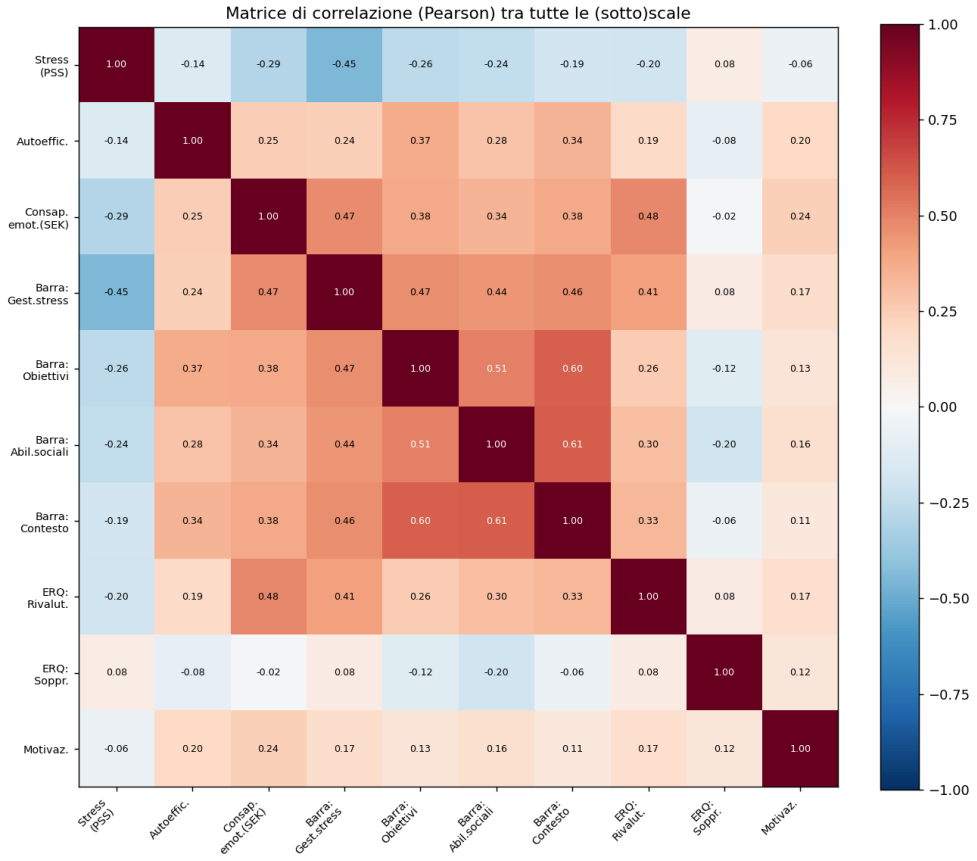


Figure 4. *Pearson correlation matrix for the study variables.*

4.4 Group comparisons

No statistically significant differences in perceived stress emerged across school levels. Mean scores were 20.36 for primary-school participants, 20.80 for lower-secondary participants and 20.42 for upper-secondary participants, F = 0.29, p = .745. The pre-primary group was not interpreted separately because it included only four participants.

Perceived stress also did not differ significantly according to employment status, F = 1.74, p = .176. Non-tenured teachers obtained a mean of 20.25,

participants awaiting placement or qualification a mean of 20.86, and tenured teachers a lower mean of 17.92; the latter estimate should be interpreted cautiously because only 12 participants held a permanent position. Women reported slightly higher overall professional emotional competence than men (3.95 vs. 3.86), but the difference did not reach statistical significance, t = 1.71, p = .087.

Table 6. *Group comparisons for perceived stress and professional emotional competence*

Outcome	Grouping variable	Group means	Test	p
Perceived stress	School level	Primary 20.36; lower secondary 20.80; upper secondary 20.42	F = 0.29	.745
Perceived stress	Employment status	Awaiting 20.86; non-tenured 20.25; tenured 17.92	F = 1.74	.176
Professional emotional competence	Gender	Women 3.95; men 3.86	t = 1.71	.087

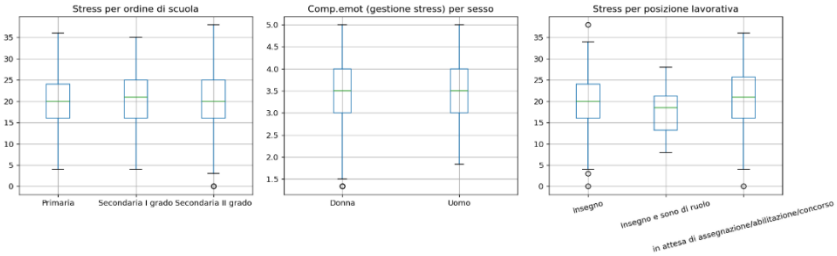


Figure 5. *Mean scores in the principal group comparisons. Group-size imbalance should be considered when interpreting the results.*

5. Discussion

The study examined the relationships among perceived stress, self-efficacy, emotional awareness and regulation, motivation and professional emotional competencies in a large sample of Italian support teachers and trainees. The most consistent finding concerns the negative association between perceived stress and stress-management competence. Participants who reported a greater capacity to identify and manage stressful situations also tended to report lower levels of perceived stress. Although the cross-sectional design does not allow causal conclusions, the result is consistent with models that interpret emotional competence as a professional resource capable of supporting teacher well-being and instructional functioning (Aldrup et al., 2024; Jennings & Greenberg, 2009).

The negative association between stress and emotional awareness and regulation further suggests that the ability to recognize, understand and tolerate emotional experience may affect how professional demands are appraised. Awareness alone is unlikely to be sufficient: without regulation, sensitivity to emotional signals may increase rather than reduce overload. The combination of awareness, acceptance and active management appears more relevant than emotional sensitivity considered in isolation.

The two ERQ strategies showed different patterns. Cognitive reappraisal was associated with lower stress and substantially greater emotional awareness, whereas expressive suppression showed a weak positive relationship with stress and a negative relationship with social skills. These findings align with research indicating that reappraisal tends to support more adaptive emotional and interpersonal outcomes, while habitual suppression may limit emotional processing and relational responsiveness (Gross & John, 2003). In teaching, this distinction is important because

professional composure should not be equated with the systematic inhibition of emotion. Effective regulation involves understanding and reframing experience, not merely concealing it.

The relationship between self-efficacy and stress was comparatively weak. One interpretation is that global confidence in one's teaching ability does not directly capture the emotional resources needed to manage intense or ambiguous situations. The unidimensional structure found for the TSES may also have obscured domain-specific relationships involving classroom management, student engagement or instructional strategies. Future confirmatory analyses should examine whether a multidimensional model provides a more differentiated account in support-teaching samples.

The four-factor organization of the Professional Emotional Competence Scale is a further relevant result. Stress management, goal planning, social skills and contextual understanding emerged as distinct but related dimensions. This structure reflects the multidimensional nature of inclusive professionalism. Support teaching requires not only the management of personal activation, but also long-term planning, collaboration and the ability to understand how personal functioning interacts with environmental conditions.

The absence of significant differences in stress across school levels suggests that emotional demands are not confined to a single educational stage. However, the very small pre-primary subgroup limits comparison. Employment status was likewise not significantly associated with stress, although tenured teachers reported a lower mean. This pattern cannot be interpreted confidently because the tenured subgroup was small. Larger and more balanced samples are required to examine how professional stability, organizational support and role recognition affect stress.

The findings can be connected to Digital Affective Literacy with appropriate caution. The study did not measure digital emotional competence or AI-related practices directly. Nevertheless, emotional awareness, regulation, social skills and contextual understanding represent resources that are also required when educational relationships are mediated by digital systems. Online silence, reduced visual cues, asynchronous communication and algorithmically generated feedback increase interpretative uncertainty. Teachers need to regulate their own reactions, avoid premature judgements and seek contextual information before attributing meaning to digital behaviour.

From an embodied perspective, digital mediation does not eliminate bodily experience; it changes what is visible and how it can be interpreted. Teachers and learners continue to experience fatigue, tension, sensory overload and relational distance, even when interaction takes place through an interface. Digital Affective Literacy therefore involves attending both to the signals made available by technology and to the dimensions that remain outside the screen.

Artificial intelligence makes critical technological awareness particularly important. AI-generated responses may appear empathic or personalized, but they do not arise from participation in an educational relationship. Teachers must evaluate automated outputs in light of the learner's history, preferences, rights and broader life project. This interpretative responsibility cannot be delegated. The emotional competencies examined in the present study may support such judgement, but future research must directly assess critical technological awareness and affective functioning in AI-mediated settings.

The results have implications for support-teacher education. Emotional competence should be integrated into professional preparation through structured activities rather than treated as a personal quality that trainees are expected to possess. Case analysis, role-play, critical-incident discussion, reflective writing and supervised simulation can help future teachers recognize emotional activation and compare alternative responses. Digital cases should be included, such as online withdrawal, inaccessible platforms, ambiguous written communication or inappropriate AI-generated recommendations.

Training should also retain a collective orientation. Stress and emotional difficulty are shaped by organizational conditions, role boundaries and patterns of collaboration. Programmes focused exclusively on individual resilience risk placing responsibility on teachers while ignoring contextual barriers. Emotional competence should instead be linked to co-planning, shared responsibility, peer supervision and the development of inclusive school cultures (Aiello et al., 2

014; Cottini, 2017).

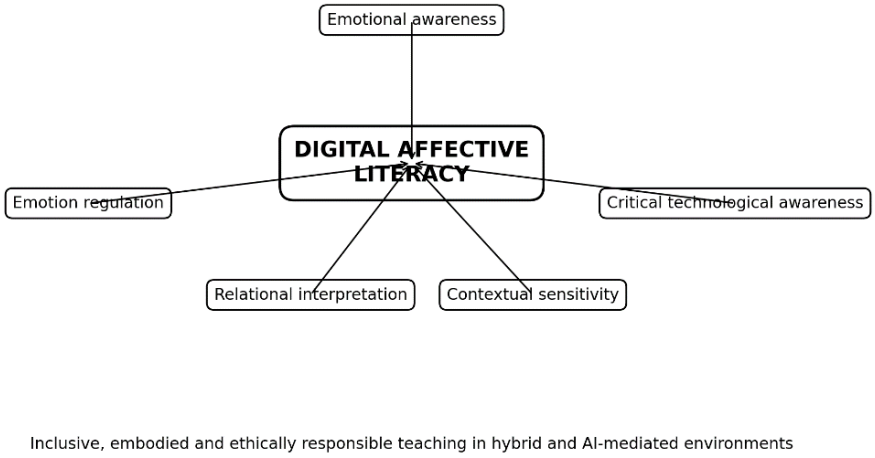


Figure 6. *Digital Affective Literacy framework for support-teacher education. The five dimensions operate within an inclusive, embodied and ethically responsible conception of teaching.*

6. Limitations and Conclusions

Several limitations should be considered. First, the cross-sectional design prevents causal interpretation. Second, all variables were measured through self-report instruments, increasing the risk of common-method variance and socially desirable responding. Third, the convenience sample was unbalanced by gender, school level and employment status, with particularly small pre-primary and tenured subgroups. Fourth, the factorial analyses were exploratory and should be followed by confirmatory analyses in an independent sample. Fifth, the original source and validation history of the Professional Emotional Competence Scale must be documented

before submission. Finally, Digital Affective Literacy was not directly measured; it was used as a theoretical framework for interpreting the educational implications of the results.

Despite these limitations, the study offers a broad account of emotional and professional functioning among support teachers and trainees. Emotional competence, especially stress management, was associated with lower perceived stress, while cognitive reappraisal showed a more favourable pattern than expressive suppression. The factorial results also support a multidimensional view of professional emotional competence that includes planning, relational abilities and contextual interpretation.

Support-teacher education should therefore combine pedagogical and methodological preparation with opportunities to develop emotional awareness, regulation and reflective judgement. These capacities become increasingly relevant as teaching moves across face-to-face, hybrid and AI-mediated settings. Digital Affective Literacy provides a useful direction for future training and research, provided that it is developed through direct empirical investigation and not treated as a purely rhetorical extension of digital competence. Longitudinal and intervention studies should examine how emotional competencies change during teacher education and whether they predict inclusive practice, professional well-being and the responsible use of educational technologies.

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