



OPEN ACCESS

EDITED BY

Chryssoula Karakitsou,
American College of Greece, Greece

REVIEWED BY

Ana Isabel Cisneros-Gimeno,
University of Zaragoza, Spain
Eleni C. Tzavela,
Univeristy of Athens, Greece

*CORRESPONDENCE

Carolina Vargas Pana
✉ cvargasp@correo.ugr.es
Emilio Jesús Lizarte Simón
✉ elizarte@ugr.es

RECEIVED 16 April 2025

ACCEPTED 06 August 2025

PUBLISHED 18 September 2025

CITATION

Vargas Pana C, Gijón Puerta J and
Lizarte Simón EJ (2025) Emotional validation
and affective bonding in early childhood
education: design and pilot of a training
program in Spain and Costa Rica.
Front. Educ. 10:1613256.
doi: 10.3389/feduc.2025.1613256

COPYRIGHT

© 2025 Vargas Pana, Gijón Puerta and Lizarte
Simón. This is an open-access article
distributed under the terms of the [Creative
Commons Attribution License \(CC BY\)](#). The
use, distribution or reproduction in other
forums is permitted, provided the original
author(s) and the copyright owner(s) are
credited and that the original publication in
this journal is cited, in accordance with
accepted academic practice. No use,
distribution or reproduction is permitted
which does not comply with these terms.

Emotional validation and affective bonding in early childhood education: design and pilot of a training program in Spain and Costa Rica

Carolina Vargas Pana*, José Gijón Puerta and
Emilio Jesús Lizarte Simón*

Department of Didactics and School Organization, University of Granada, Granada, Spain

Emotional development in childhood is an aspect of undeniable importance, considering that this is a key stage for the acquisition of the emotional and social skills required for life in society. This study analyzes the effects of implementing a teacher training program for children's emotional development based on the establishment of emotional bonds and the validation of emotions in early childhood education. The strengthening of children's emotional development—focused on the establishment of emotional bonds and the validation of emotions—increases the number of interactions linked to these processes, especially those of emotional validation. The objective of this research was to analyze the effectiveness of a program developed to strengthen children's emotional development—focused on the establishment of emotional bonds and the validation of emotions. A quasi-experimental pretest-posttest design was used, focusing on comparing pre- and post-intervention results between an experimental and a control group in two international contexts (Spain and Costa Rica). The evaluation of the training program's effect, carried out in both groups, included a pretest and posttest of the abbreviated and translated into Spanish scale of the Student-Teacher Relationship Scale (STRS), as well as a record of the frequency of emotional validation actions during three days of classroom work. The data were analyzed with descriptive statistical tests and various types of analysis to analyze the intervention effects using Mixed Effects Models. The pretest and posttest analyses showed a significant improvement in some of the aspects of affective bonding measured with the Student-Teacher Relationship Scale (STRS) and an increase in emotional validation actions present in teacher-child interactions. These findings suggest that a teacher training program focused on emotional validation and strengthening affective bonds can lead to greater closeness between teachers and children, as well as a reduction in classroom conflicts.

KEYWORDS

teacher training, affective bond, emotional validation, early childhood education, preschool education

The emotions in human beings

The study of emotions and their implications in educational processes is a current area of educational research. However, the interest in this aspect of human behavior originated as a scientific discipline approximately one hundred and fifty years ago, when Charles R. Darwin published his third book on what was then called “transformism” and is now known as

“evolution.” Indeed, after the great success of *On the Origin of Species by Means of Natural Selection* (Darwin, 1859) and *The Descent of Man* (Darwin, 1871), *The Expression of the Emotions in Man and Animals* (Darwin, 1872) was published in 1872, a volume dealing with the biological aspects of emotional behavior, in which he explores the animal origins of human characteristics such as raising the eyebrows in moments of surprise or lifting the upper lip in an aggressive grimace.

The deep evolutionary origin of emotions and their expression as an essential part of social life gave rise to the development of scientific literature on the study of emotions and projected into the future as a framework for understanding the mind and human behavior in the context of biology, which remains relevant today in fields such as evolutionary psychology and comparative psychology. One of the first exponents of the latter was the American psychologist William James, who published *The Principles of Psychology* in 1890 (James, 1890).

The later development of psychology and its relationship with the study of emotions has been extensive, especially in the 1970s, when Paul Ekman defined six basic emotions related to confrontation (anger, fear, disgust) and to well-being (joy, sadness, surprise), established their universal expression in human beings, and identified the small automatic, brief, and unconscious facial expressions that help to determine a person's actual emotional state (microexpressions) (Ekman, 1972). In the same decade, Richard Dawkins (author of *The Selfish Gene*) (Dawkins, 1976) popularized evolutionary psychology by applying concepts from evolutionary biology and advancing the understanding of brain physiology.

With the incursion of neuroscience in this field, the research of Jaak Panksepp provided a conceptual framework for studying the emotional systems of the brain, offering a better understanding of the biology of emotions (Panksepp, 1998). Antonio Damasio studied the relationship between emotions and reason, proposing the hypothesis that emotions enter the spiral of reason and can help in the reasoning process rather than always disturbing it—contrary to the prevailing belief at the time (Damasio, 2005).

Currently, the undeniable impact of emotions and feelings on psychological and social development, as well as on educational processes, is widely recognized. From a socio-constructivist approach, Ferreira and Ribeiro (2019) affirm that the teaching–learning process involves both cognitive and affective aspects and that affectivity is not a complement but an essential part of the educational process.

Regarding the concept of emotional validation, its most important background lies in the work of Rogers (Rogers, 1951), who did not use the term “emotional validation” but did delve into the importance of unconditional positive regard and empathy in the therapeutic relationship—elements that are essential in therapeutic work. Since then, it has been addressed in the literature by authors such as Alan Fruzzetti, Alison Ruork, or Chad Shenk (Fruzzetti and Ruork, 2018; Shenk and Fruzzetti, 2011) and especially by the American psychologist Marsha Linehan (Linehan, 1993), as a key component in the treatment of anxiety and depression. Linehan describes this process as essential to help patients accept and manage their emotions in a healthy way. Thus, emotional validation grounded in emotion theory, humanistic therapy, and research on facial expression and emotional intelligence—is becoming a key concept in psychotherapy and mental health and it is increasingly applied to the educational field (Fernández-Martín Moreno-Guerrero et al., 2022; Titsworth et al., 2010) and specifically in early childhood or preschool education (Fatria and Juwita, 2024).

Cultural differences in emotional regulation

While the universal existence of emotions and their manifestation have been widely supported by solid scientific studies, the way in which they are regulated shows a significant cultural influence. Emotional regulation includes all those processes that facilitate the experience of emotions that conform to cultural norms and are functionally appropriate (Thompson, 1991; Gross et al., 2006, cited by De Leersnyder et al., 2013). Understanding the cultural similarities and differences surrounding emotions is essential to achieving a deeper understanding of them, as well as the inherent flexibility of emotional processes (Tsai, 2024). For example, the results of the study conducted by Matsumoto et al. (2008) indicate that members of individualistic cultures (United States, Canada, United Kingdom, among others) support the expression of emotions more, while members of collectivist cultures (China, Japan, or Nigeria) support it less. Some of these contrasts are likely due to general differences in the approval of inexpression, as in the case of Chinese people from Hong Kong, where emotional suppression is the appropriate way to interact with others (Tsai, 2024).

In Euro-American contexts, emotions such as pride and anger appear to be functional, as they reflect individual self-esteem and personal autonomy. In the case of interdependent cultural contexts in East Asia, anger seems to be highly undesirable in interdependent relationships because it may threaten relational harmony. Another difference lies in motivational focus: American participants seek situations that promise success, while East Asians and Russians avoid situations that are likely to lead to failure (De Leersnyder et al., 2013).

Cultural differences in emotion regulation influence how people manage and express what they feel and have consequences in the educational world that deserve to be studied. As Tsai (2024) points out, understanding these similarities and differences will help to understand emotions in general and the flexibility of emotional processes in particular.

Emotions in the educational context: a competency-based perspective

In education, emotions and their regulation have been integrated into a broader approach that considers competency-based training models (Lizarte, 2015; Gijón, 2017). These approaches have been gaining ground over the past few decades in both the academic and professional sectors, covering everything from initial to ongoing training for professionals, as well as for teachers and trainers (Denham et al., 2014; Browne and Keeley-Browne, 2009). On the one hand, competency-based training models, stemming from the concept of “communicative competence” in psycholinguistics as the effective use of language, have extended from instrumental areas such as mathematics to other areas of the curriculum, or more generally, to the entire educational system, such as the eight key competencies conceptualized in the European Union (EU) and adapted to the educational systems of its member countries (Rychen and Salganik, 2002) or the ECTS (European Credit Transfer System) for higher education in the EU, which organizes undergraduate and postgraduate degrees based on a set of general, transversal, or specific competencies. On the other hand, they have gradually merged with the concept of

professional qualification—linked to the workplace—in vocational training and the labor market (Gijón, 2017; Lizarte Simón et al., 2024), due to their ability to project training into the future to meet emerging challenges. As an example, the European Qualifications Framework (EQF) also serves as a common reference framework in the EU, used to define competency levels in different professions and fields of knowledge.

From this general competency-based approach, the so-called “soft skills” have been particularly recognized as essential for human development. Also referred to as “social skills” or “interpersonal skills,” they are a set of attributes and abilities that enable individuals to interact effectively with others in social or professional settings. In essence, they include the ability to collaborate effectively, manage time, and communicate clearly, among others (Danao, 2024). The study of soft skills has been conducted in many fields, including psychology, education, business management, and sociology. It is currently a key topic in both professional and educational contexts, as these skills are considered essential for personal development and success across different settings. Even in the military sphere, these skills have been incorporated for decades into training and doctrine commands (known as MADOC in Spain), as since the 1970s, skills such as communication, teamwork, conflict resolution, leadership, and responsibility (Gamelearn Team, 2023) have been considered key in the military training of the United States Army, given their relevance to both troops and officers (Herrera and Rojas, 2022).

Recent literature suggests that soft skills should be included not only in professional training or secondary education, but from the earliest educational stages, as this is the key to human development (García-Saisó, A., cited in Herrera and Rojas, 2022). In this regard, the *Future of Jobs Report* (World Economic Forum, 2023) presents the 10 most important skills for workers in 2023: analytical thinking, critical thinking, resilience, flexibility and agility, motivation and self-awareness, curiosity and lifelong learning, technological literacy, reliability and attention to detail, empathy and active listening, leadership and social influence, and quality control. As can be seen, six of these skills are classified as soft skills.

In the Spanish regulatory context, *Ley Orgánica 3/2020, de 29 de Diciembre* (2020) places particular emphasis on emotional and values-based education from its preamble. Article 12 explicitly states that this stage aims to contribute to the physical, emotional, social, cognitive, and artistic development of students. Article 13 emphasizes the importance of aspects such as emotional development and empathy. Additionally, Article 14 specifies that emotional development and emotional management, among other aspects, will be progressively addressed through emotionally positive learning experiences in an environment of affection and trust (*Ley Orgánica 3/2020, de 29 de Diciembre*, 2020).

Real Decreto 95/2022, 14561 (2022) adapts the key competences to the school context as well as to the principles and goals of the education system established by the aforementioned law. Among these competences, socioemotional learning is included in the personal, social, and learning-to-learn competence, which seeks to enable children to begin recognizing, expressing, and progressively managing their own emotions and feelings, as well as identifying others' emotions and feelings, while developing attitudes of understanding and empathy. These key competences are cross-curricular in nature, consistent with the holistic approach of early childhood education. It is expected that, throughout their schooling, these competences will

enable students to successfully face the main challenges of the 21st century. It is important to highlight that personal, social, and learning-to-learn competence directly addresses many of these challenges.

Normative evaluation of early childhood education in Spain has shifted from a welfare-oriented approach to a growing recognition of its educational nature. *Ley Orgánica 8/2013, de 9 de Diciembre* (2013) (LOMCE) assigned less relevance to this educational stage compared to later stages. However, *Ley Orgánica 3/2020, de 29 de Diciembre* (2020) strengthens emotional and affective development as a key pedagogical principle, and Royal Decree 95/2022 translates these principles into the curriculum, integrating emotional management as a core component of integral development.

In the case of Costa Rican legislation, *Ley Fundamental de Educación* (1957) establishes as educational goals the contribution to the full development of human personality and the promotion of solidarity and understanding among individuals. Specifically, Article 12 identifies among the objectives of preschool education the stimulation and guidance of children's experiences, the development of attitudes of companionship and cooperation, and the facilitation of the expression of the inner world of the child.

Although Costa Rican education does not adopt a competence-based model as in Spain, its legislation, curricular, and educational policy incorporate principles that foster the development of socioemotional skills. From the curricular perspective, knowledge construction is promoted through active exploration and the expression of ideas and feelings.

Both the *Ministerio de Educación Pública* (2014) and *Ministerio de Educación Pública* (2016) include capacities and expected learning outcomes that correspond to what in other contexts are referred to as transversal competences. These include the development of empathy, effective communication, conflict resolution, critical thinking, emotional self-regulation, and decision-making skills. Specifically, emotional education is recognized as a pedagogical principle in the educational regulations of both Spain and Costa Rica. In Spain, LOMLOE highlights its relevance in early childhood education alongside tutorial action and values. Similarly, the *Ministerio de Educación Pública* (2015) aims to promote social skills such as empathy and conflict resolution, communication skills, and the ability to interact in networks and with people from different origins, cultures, and perspectives. In both countries, this educational stage provides suitable conditions for emotional development and emotional management through positive learning experiences. Moreover, it is linked to the early acquisition of key competences for lifelong learning, aligned with both European and national guidelines.

The current regulatory frameworks in both countries recognize the educational value of the emotional dimension from early childhood, in line with international educational policies. Thus, it has become a central axis for both integral development and educational practice in this stage.

Educational models that incorporate emotional education

The incorporation of emotions into educational systems is currently becoming more widespread. Examples include the SEL (Social and Emotional Learning) model of the OECD, the EU's LifeComp model (developed from the key life competencies

reformulated at the end of the last decade), or the model promoted by the EU NESET network of European experts — *EU NESET Framework for Social and Emotional Education* – <https://nesetweb.eu/en/> — (see comparison of OECD SEL elements and EU NESET in Figure 1). Since they are models, in most cases they involve reorganizing and grouping competencies based on expert opinions, although the core of what they present is not significantly altered. It is worth noting that the research group *Ecological Approaches to Social Emotional Learning (EASEL) Laboratory* (<https://easel.gse.harvard.edu>), led by Dr. Stephanie Jones at Harvard University, has identified, described, and compared 40 models or frameworks for social and emotional learning (SEL is the English-language acronym), due to the participation of a broad range of disciplines in their definitions, their wide adoption, and the inclusion of skills, competencies, and other attributes that have been codified and organized.

Thus, the importance currently given to social and emotional learning at the international level can be emphasized, and we recognize this importance as we develop research on emotional validation.

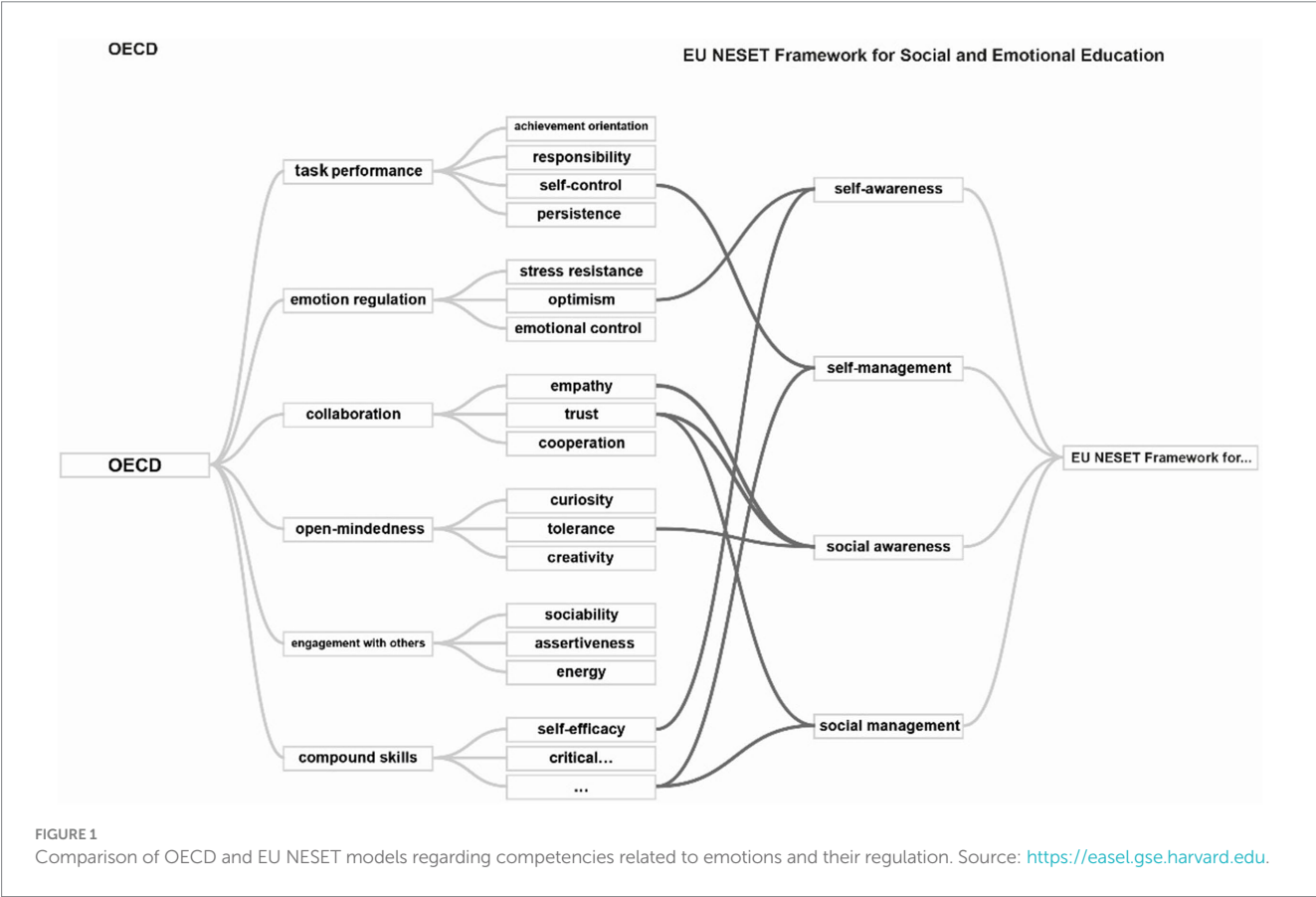
The role of emotional validation: benefits, limitations, and considerations in emotional regulation

Various studies in different contexts have highlighted the benefits of emotional validation, which include improving the recognition and management of emotions, fostering resilience, developing empathy and understanding, and strengthening trust, among other aspects. In

a study by Kuo et al. (2022), which analyzed the impact of validating and invalidating responses in medical interviews after verbal disclosure of low back pain, it was observed that participants who received validating responses experienced a significant decrease in levels of negative affect, pain, and frustration, and showed greater satisfaction with the medical consultation. However, some authors warn that, in certain situations, validation is not always the most appropriate support strategy, so it is necessary to carefully evaluate the emotional context of the person expressing their feelings.

According to Aponte (2022), it is problematic to assume that one can “validate” an emotion without necessarily agreeing with the person’s interpretation of it or considering whether the emotion being felt is justified. The author argues that validating an emotion involves validating the individual’s opinion about their current situation, which is shaped by their personal history. From this perspective, what is validated is not an isolated emotion, but rather the emotion in relation to the event in which it occurs, and the understanding one has of that event. In this sense, the emotional experience would require self-reflection, not validation. Being self-reflective means learning to recognize when one is angry, fearful, or hurt. Reflection enables the brain to pause during intense emotional states to organize what is being experienced, the interpretations of the situation, and the internal processes that are unfolding. Reflection can guide future reactions to heightened arousal and unpleasant interactions (Aponte, 2022).

The study conducted by Kuo et al. (2022) provides important information on the effect of validation in specific emotional experiences. Their findings suggest that implementing validation as a possible emotional regulation technique, before using a more



“challenging” strategy such as cognitive restructuring, could be particularly effective for those with a higher level of emotional dysregulation when experiencing emotions such as shame or sadness. However, it may be less likely to improve feelings of fear and anxiety. In such cases, direct confrontation or exposure may be more beneficial. From a scientific perspective, but also rooted in the moral issues of education, [Oron et al. \(2020\)](#) raise objections to the validity and usefulness of validation processes for personal growth during the early stages of development.

In the academic debate on the relevance of emotional validation, it is considered a highly effective tool for the holistic development of the individual. Despite the positive effects described in the literature, there are still areas that have not been thoroughly explored. A key aspect in this discussion is the role that emotional validation can play in the development of emotional awareness and regulation. However, many questions about its application—especially in early educational stages—remain unanswered. For this reason, it is necessary to advance in the collection of evidence for or against the use of this educational tool, particularly in childhood, which fully justifies the study of emotional validation in preschool/early childhood education that we present.

Emotions in early childhood/preschool education

Considering that international education policies have strongly promoted emotional development from an early age over the last decade, and that recent studies ([Cipriano et al., 2023](#)) have provided strong evidence of the significant impact of programs aimed at developing social and emotional skills, the need to offer teacher training initiatives that comprehensively support emotional development in early educational practices is becoming increasingly evident.

In this regard, according to [UNESCO \(2024a\)](#) the Global Report on Early Childhood Care and Education: The Right to a Strong Foundation ([UNESCO, 2024b](#)) advocates for the promotion of Early Childhood Care and Education (ECCE) with the goal of preparing children for school. This includes the development of programs that enhance literacy, numeracy, and socioemotional skills, which are crucial for achieving strong educational outcomes.

However, the implementation of such proposals is presented as an unresolved issue in educational research. Although skill-based interventions specifically targeting children’s socioemotional learning have been an important area of research ([McClelland et al., 2017](#), as cited in [Mondi et al., 2021](#)), the literature review reveals a lack of consensus among researchers and practitioners on how to define, assess, and promote this type of learning ([Mondi et al., 2021](#)). It is within this context that this study emerges, aiming to strengthen emotional development in childhood through the implementation of a teacher training program based on the establishment of affective bonds and emotional validation and to assess its influence within the framework of early childhood or preschool education.

Moreover, numerous studies highlight the significant influence that children’s interactions with people in their environment and with peers have on emotional development. Such is the case of the *Study of Early Child Care and Youth Development (SECCYD)*, initiated in 1989 by the National Institute

of Child Health and Human Development (NICHD) as cited in [LoCasale-Crouch et al. \(2016\)](#), which demonstrated that the quality of care, beyond basic access, is associated with children’s learning outcomes. Likewise, later analyses such as those by [Barnett \(2011\)](#) and the NICHD Early Child Care Research Network (1999a, 1999b, 2000), as cited in [LoCasale-Crouch et al. \(2016\)](#), highlighted another key aspect of quality: warm, responsive, and stimulating interactions between the educator and the child.

Based on these studies, we seek to explore the role of the teacher as a key figure in creating an emotionally safe environment, conducive to both learning and the development of social skills.

Emotional development in childhood and the establishment of affective bonds

Emotional development is understood as a gradual process through which the child acquires the ability to identify and understand what they feel, comprehend the emotional state of others, manage and express their emotions constructively, regulate their behavior, act empathetically, and establish positive relationships with peers. All of this lays the foundation for mental health throughout life.

For every human being, emotional development is an essential aspect and begins in childhood. In this process, the role of the caregiver is fundamental, as it occurs through the interactions the child has with those around them and the positive or negative situations to which their environment exposes them.

According to [Ainsworth and Bowlby \(1991\)](#), bonding is a relatively enduring emotional tie with a partner, which is unique and not interchangeable with anyone else. Although throughout life we relate to many people, we form bonds with those who are sensitive and treat us kindly. Similarly, [Horno \(2008\)](#) describes affective bonds as relationships built between two individuals who have invested their own emotions in them, nurtured them over time, and committed to them by creating a shared relational project. This process turns them into unique and irreplaceable individuals, serving as developmental references for one another. To forge an affective bond, it is necessary to maintain frequent interactions, mutual care, and emotional connection. While it involves love and affection, the existence of trust, respect, and understanding is also essential. This type of relationship provides vital support and significantly contributes to the emotional well-being of individuals.

Emotional validation

Emotional validation is the expression of genuine understanding of a person’s experience or behavior (emotion, desire, thought, sensation, action, etc.) and how that behavior or experience “makes sense” ([Fruzzetti and Iverson, 2004](#); [Linehan, 1993](#), as cited in [Fruzzetti and Ruork, 2018](#)). The key to successful emotional validation is referring to the emotion or emotional perspective of another person accurately and without judgment. What is accepted is the person’s emotional experience, not necessarily their behavior ([Lambie and Lindberg, 2016](#)). When validation does not occur, our reaction to the stimulus increases and the accuracy of expression decreases. Conversely, being validated provides calm and helps improve negative

emotional reactions (Shenk and Fruzzetti, 2006; Swann, 1997, as cited in Lambie and Lindberg, 2016).

When we validate an emotion, we seek to deeply recognize and genuinely accept the emotions of others. To do this, a safe and understanding space is offered to express feelings without being judged. Validation does not necessarily imply agreement with a person's behavior or experience but rather being present and respecting their emotional reality. This act strengthens emotional connection, fosters open communication, and supports the constructive resolution of conflicts (Fruzzetti and Shenk, 2008; Fruzzetti and Ruork, 2018).

Investing in teacher training is considered essential to achieving this goal, bearing in mind that although their role in achieving adequate emotional development in children can be a key element, there are few proposals aimed at teacher training in this area. Scientific research in the field of education has focused on strengthening children's emotional development through the creation of proposals implemented in classrooms during certain times of the school day. However, there are few teacher training programs on pedagogical mediation (Vargas et al., 2022).

For this reason, the training program implemented in our research is committed to teacher education based on an educational experience that includes sensitive, respectful, and caring attention, which will facilitate the construction of the emotional foundation necessary for children to become affectionate, compassionate, considerate, and empathetic adults.

Teacher training program for the development of emotions in childhood

Our working hypothesis suggests that teachers trained in a program focused on strengthening children's emotional development—focusing on establishing emotional bonds and validating emotions—increase the number of interactions linked to these processes, especially those of emotional validation. By applying this approach to their daily practice, it is expected that the children in their care will achieve greater development of life skills and stronger academic performance, which will be assessed through a pretest and posttest administered to both groups of children whose teachers participated in the training and to control groups. In this sense, the overall objective of the program is to train teachers to understand the positive effects of these components in strengthening the emotional development of children enrolled in early childhood education in Spain and preschool in Costa Rica.

Methodology

Design

This paper presents a quasi-experimental pretest-posttest design, focusing on comparing pre- and post-intervention outcomes between an experimental and a control group in two international contexts (Spain and Costa Rica). Specifically, a quasi-experimental design with non-equivalent groups was implemented, in which participants were not randomly assigned to groups based on their participation in the training program. A short version of the

Student-Teacher-Relationships Scale (STRS) (Pianta, 2001) was used to assess student and teacher interaction before and after the training program.

Sample

Given the sample size, a final sample of 136 children was considered for the pre- and post-study application of the Student-Teacher-Relationships Scale (STRS). Of these, 51.5% ($n = 70$) were girls and 48.5% ($n = 66$) were boys, with ages ranging from 4 to 6 years old, with a mean of 4.4 years ($SD = 0.7$). Regarding the origin, 45.6% of the participants ($n = 62$) came from Early Childhood Education centers in the province of Granada (Granada) and 54.4% ($n = 74$) came from preschools in San José (Costa Rica). All of them participated in the training program designed for this project. According to the group assignment based on whether or not the teachers participated in the training course, 50% of the participants formed the control group and the other 50% the experimental group.

Data collection instruments

To gather evidence of the effect of the training program, the abbreviated Spanish version of the Student-Teacher Relationships Scale (STRS; Pianta, 2001) was applied before and after the intervention, which allowed for a statistical evaluation of the impact of the program on the dimensions of Closeness and Conflict in the student-teacher relationship.

Student-teacher relationship scale STRS

The Student-Teacher Relationship Scale STRS (Pianta, 2001) was designed to measure the teacher's perception of the relationship with a particular student. The STRS assesses teacher-student relationship patterns based on three dimensions: Conflict, Closeness, and Dependency. These are key elements in the formation of an affective bond and the overall quality of the relationship. The original STRS is a 28-item self-report measure using a 5-point Likert scale ranging from 1 "Definitely does not apply" to 5 "Definitely applies." In our study, we used the shortened 15-item version (Pianta, 2001), which provides scores for Conflict and Closeness, with good psychometric properties in multiple studies (Pianta, 1992), and internal consistency between 0.86 and 0.89. The items are divided into two subscales: Conflict (8 items) and Closeness (7 items). The scores obtained in the questionnaire indicate the type of relationship between teacher and student.

Procedure

As previously mentioned, this study was carried out with 8 early childhood education teachers from two public schools in each country. One of the schools was selected as the application group (A), and the other as the control group (C). The application group participated in the training program and subsequently applied the

guidelines for working with children. The control group did not receive this intervention.

The design included a battery of qualitative and quantitative instruments applied in a pre-test and post-test format to both the application and control groups, with the difference that group A received the teacher training and implemented the corresponding guidelines. An outline of the training and the guidelines is presented as [Supplementary material](#).

Preliminary evaluation

The purpose of this assessment was to establish a baseline prior to the intervention and then determine the differential impact of the training process on teacher-child interaction. This assessment was conducted using the Robert C. Pianta Teacher-Child Relationship Scale. The Student-Teacher Relationship Scale (STRS) by Robert C. Pianta.

Training program implementation

The training program consists of two phases. In the first one, the 4 units of the course “Development of Emotions in Childhood” are delivered, aiming for teachers to understand the positive effects of establishing affective bonds and practicing emotional validation in the emotional development of preschool children. In the second phase, the application of the guidelines for working with girls and boys is carried out, as reviewed and provided in the fourth unit of the course.

Post evaluation

Two weeks after the implementation, the post evaluation was conducted using the same strategy and instruments as the initial evaluation.

Timeline

The fieldwork phase of the study had a different duration in each country due to differences in school schedules. In the case of Costa Rica, the work was carried out in two daily sessions of 4 h and 10 min, one in the morning and one in the afternoon. This allowed for two observations per day, whereas in Spain, one observation per day was conducted over the course of 12 school days. The details are presented in [Table 1](#).

Data analysis

For the analysis of the STRS scale, descriptive calculations were performed on the scores on the Closeness and Conflict dimensions at the pre- and post-intervention periods. The reliability of the subscales was assessed using Cronbach's alpha, obtaining values greater than 0.70, indicating adequate internal consistency of the measures ([Nunnally and Bernstein, 1994](#)). To analyze the impact of the intervention, mixed-effects models were used, with group (Control vs. Experimental) and intervention (pre vs. post) as fixed effects, and subject as a random effect. The covariate city (Granada vs. Costa Rica) was included to control for potential contextual differences. Differences in scores on the Closeness and Conflict dimensions were assessed by comparing means, and a significance level of $p < 0.05$ was applied to all statistical tests. The data were analyzed using IBM SPSS v. 29.

TABLE 1 Timeline of observations in each country.

Country	Group	Activity	Duration	
			Start	End
Costa Rica	Application	Pre-test	13/04/2023	21/04/2023
		Training	26/04/2023	26/05/2023
		Implementation	29/05/2023	09/06/2023
		Post-test*	12/06/2023	23/06/2023
	Control	Pre-test	02/05/2023	18/05/2023
		Post-test*	19/06/2023	29/06/2023
Spain	Application	Pre-test	04/10/2023	19/10/2023
		Training	23/10/2023	20/11/2023
		Implementation	21/11/2023	01/12/2023
		Post-test	04/12/2023	11/01/2024
	Control	Pre-test	02/11/2023	17/11/2023
		Post-test	15/01/2024	08/02/2024

*The period was shortened because the post-test was applied to only 3 teachers due to a medical leave. **The period was extended because the return of a teacher who had been on medical leave was awaited.

Results

STRS analysis

[Table 2](#) presents the descriptive data for the students' sociodemographic variables in each group, as well as the statistical tests performed to compare the variables between the groups. The results showed that there were no statistically significant differences in any of the variables between the control and experimental groups.

In [Table 3](#), the reliability (Cronbach's α) and the descriptive statistics of the scores at the beginning of the study for the Student-Teacher Relationship Scale are shown. Both the Closeness and Conflict dimensions show high reliability coefficients. In general, it can be observed that there are initially stable levels of Closeness and Conflict. The scores for Closeness ($M = 34.07$; $SD = 5.66$) and Conflict ($M = 13.60$; $SD = 8.11$) indicate that, on average, the perceptions show normalized values ([Patricio et al., 2015](#)). The standard deviation (SD) of 5.66 suggests that there is some variability in the responses, but it is not excessive. The conflict scores suggest that the sample exhibits a low level of conflict. The standard deviation (SD) of 8.11 indicates greater variability in responses compared to closeness, which may suggest that some children experience conflict more intensely than others. As previously mentioned, [Table 3](#) shows that both variables Closeness ($\alpha = 0.905$) and Conflict ($\alpha = 0.934$) present good internal consistency ([Nunnally and Bernstein, 1994](#)). Regarding the minimum and maximum values for Closeness, they initially provide information related to the variety of teacher-student relationships, with the minimum value being 14 and the maximum 40. The observed range may indicate a pre-existing heterogeneity in the relationships. Regarding Conflict, the minimum and maximum values show a normal range, which may suggest the presence of different dynamics within the group without the teacher experiencing a negative or conflictive relationship, with the minimum value being 7 and the maximum 34.

The results of the mixed-effects models conducted to determine the effect of the intervention on Student-Teacher

Relationships are presented below. The variables included as fixed effects were group (Control and Experimental), Intervention (pre, post), the Group*Intervention interaction, and the covariate City (Granada and Costa Rica). Subjects were included as the random effect.

Table 4 presents the means and standard deviations of the students' scale scores before and after the intervention. Overall, the scores show an effect of the intervention program. Regarding the Closeness variable, at first glance, the data in Table 4 suggest that the intervention was effective in increasing closeness in the experimental group compared to the control group. Based on this, it is not unreasonable to think that the intervention had a significant impact on the perception of Closeness in the experimental group, while the control group showed minimal changes. The experimental group shows a significant increase in the mean, rising from 23.92 to 35.96. This increase is substantial, suggesting that the implemented intervention likely had a positive effect on the perception of Closeness. At the same time, the decrease in the standard deviation from 5.86 to 4.95 indicates that the scores were more concentrated around the new mean, suggesting greater uniformity in the experimental group's responses after the intervention.

Regarding the Conflict variable, we can observe that the experimental group shows a significant reduction in perceived conflict after the intervention, dropping from 17.87 to 9.82. It is worth noting that in the control group, although there is also a slight decrease (from 18.43 to 17.56), this change is smaller and could be attributed to external factors not related to the intervention. Based on these average data, the intervention might initially prove effective in reducing conflict.

Closeness dimension

In closeness (Table 5), both the group and time effects were statistically significant. However, the Group*Intervention interaction also showed a statistically significant effect, indicating that the score changed throughout the study depending on the participation group.

In Table 6, the interaction effect is shown. Thus, among students in the control group, no significant difference was observed at the end of the study compared to the beginning ($p = 0.123$), whereas among participants in the experimental group, the score increased at the end of the study compared to the beginning ($p < 0.001$). At the end of the study, the score of the students in the experimental group was significantly higher than that of the students in the control group ($p < 0.001$). Figure 2 shows the interaction between both effects.

Conflict dimension

In the conflict dimension (Table 7), the group and time effects were statistically significant. However, the Group*Intervention interaction also showed a statistically significant effect, indicating that the score changed throughout the study depending on the participation group.

The interaction effect is shown in Table 8. For the students from the control group, no significant difference was observed at the end of the study compared to the beginning ($p = 0.255$), whereas in the participants from the experimental group, the score decreased at the

TABLE 2 Descriptive and comparative sociodemographic variables between groups.

	Group		Test	p-value
	Control	Experimental		
Age, mean (SD)	4.47 (0.76)	4.24 (0.65)	t (134) = 1.94	0.055
Sex, n (%)			χ^2 (1) = 0.12	0.731
Female	36 (52.9)	34 (50)		
Male	32 (47.1)	34 (50)		
City, n (%)			χ^2 (1) = 1.90	0.168
Granada	27 (39.7)	35 (51.5)		
International	41 (60.3)	33 (48.5)		

TABLE 3 Descriptive statistics and reliability of the PRE measurement scale.

	Cronbach	Minimum-Maximum	Mean (SD)
Closeness	0.905	14–40	34.07 (5.66)
Conflict	0.934	7–34	13.60 (8.11)

TABLE 4 Descriptive statistics of scale dimension scores for student–teacher relationship.

	Time -Intervention			
	Pre		Post	
	Mean	SD	Mean	SD
Closeness				
Control	24.85	5.51	26.03	5.37
Experimental	23.92	5.86	35.96	4.95
Conflict				
Control	18.43	7.08	17.56	6.25
Experimental	17.87	6.14	9.82	5.32

TABLE 5 Mixed-effects model on closeness.

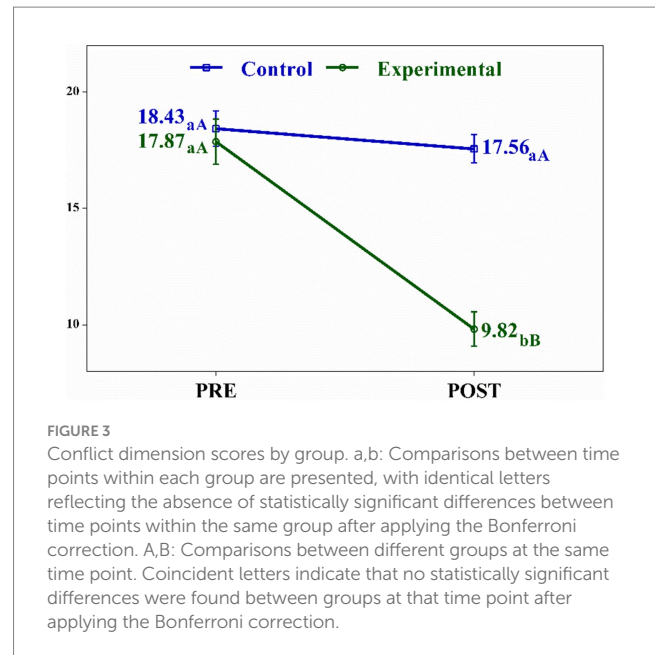
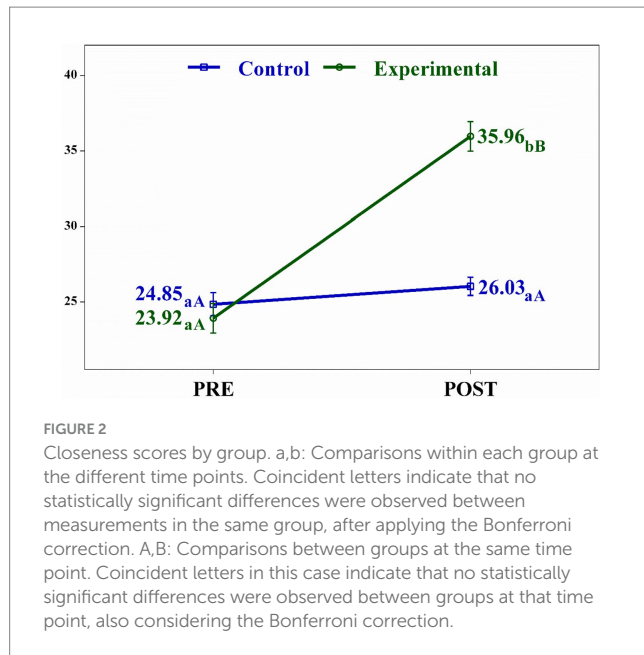
	B (SE)	t	p-value
Group	2.00 (0.93)	2.16	0.032
Intervention	−2.74 (0.92)	−2.96	0.003
Grupo*Intervention	2.80 (1.01)	2.77	0.006
City (Costa Rica vs. Granada)	−0.63 (0.66)	−0.96	0.339

B, Regression coefficient; SE, Standard error.

end of the study compared to the beginning ($p < 0.001$). At the end of the study, the score of the students in the experimental group was significantly lower than that of the students in the control group ($p < 0.001$). Figure 3 shows the interaction between both effects.

Discussion and conclusions

The debate on emotional validation and its usefulness for the integral development of children in the stage of early childhood



or preschool education is still in its early stages (Cornejo-Chávez Araya-Moreno et al., 2021), and it will be through a larger number of studies that relevant evidence on the topic can be obtained.

Our study presents limitations due to the sample size, but it yields results that point toward a positive effect of teacher training in emotional validation through a training program specifically created for this purpose, which could translate into a potential improvement in classroom climate and in student–student and student–teacher relationships.

Indeed, various studies have shown that early childhood educators who participate in training programs and receive guidance on effective teaching practices can make positive changes in their daily interactions with children, which leads to a beneficial impact on their learning and development (Brennan et al., 2008; Domitrovich et al., 2009; Fox et al., 2011; Hamre et al., 2012; Mashburn et al., 2008; Yoshikawa et al., 2015 as cited in LoCasale-Crouch et al., 2016).

The pre- and post-intervention application of the STRS scale comparing the application and control groups yields significant results in the dimensions of “Closeness,” which increases in the application group, and “Conflict,” which decreases in the same group. Although there are not many studies similar to ours in terms of hypothesis, educational stage, and applied instruments, we have identified studies in early childhood and other educational stages that support our findings regarding the reduction and moderation of conflicts, as well as the effectiveness of training programs for emotional work and conflict resolution.

Our results are consistent with those of Alvarado (2022), who, using the same scale in an early childhood education center in the Atlántico Department of Colombia, demonstrated the significant relationship between closeness between teachers and students and the existence and resolution of conflicts. In the context of primary education, Ambrona and Márquez (2012) have shown the effectiveness of a short emotional development program for conflict reduction and resolution. Alonso Hernández and Vinat (2018)

TABLE 6 Group* intervention interaction in the closeness dimension.

	Measure		Mean difference (<i>p</i> -value)
	Pre	Post	
	Mean (SD)	Mean (SD)	
Closeness			
Control	24.85 (5.41)	26.03 (5.37)	−1.18 (0.123)
Experimental	23.92 (5.80)	35.96 (4.90)	−12.04 (<0.001)
Mean difference (<i>p</i> -value)	0.93 (0.342)	−9.93 (<0.001)	

TABLE 7 Mixed effects model on mental health knowledge.

	<i>B</i> (ET)	<i>t</i>	<i>p</i> -value
Group	2.41 (1.11)	2.16	0.031
Intervention	1.85 (0.80)	2.30	0.022
Group*intervention	−2.30 (0.90)	−2.55	0.011
City (Internacional vs. Granada)	−1.47 (0.94)	−1.57	0.119

B, Regression coefficient; SE, Standard error.

TABLE 8 Group* intervention interaction – conflict dimension.

	Measure		Mean difference (<i>p</i> -value)
	Pre	Post	
	Mean (SD)	Mean (SD)	
Conflict			
Control	18.43 (8.48)	17.56 (8.05)	0.87 (0.255)
Experimental	17.87 (7.74)	9.82 (6.25)	8.05 (<0.001)
Mean difference (<i>p</i> -value)	0.56 (0.567)	7.74 (<0.001)	

reported similar results on the effectiveness of emotional development programs to improve coexistence in secondary education.

As for the effectiveness of teacher training programs for emotional work, there are also positive references like the one we found—within the limitations of our study—which support the need to advance in this area of teacher education at all educational stages, especially in early childhood / preschool education. One of the most interesting examples of such programs and their relationship with improved classroom conflict management is the study by Ulloa and collaborators (Ulloa Evans et al., 2016) in the Greater Wellington region of New Zealand, which highlighted significant differences in the emergence and resolution of conflicts between groups of teachers who completed emotional competence training courses and those who did not.

In this study, it is pertinent to examine certain contextual factors that may have influenced the results, particularly the differentiated effects observed between countries and among groups. This is the case of the control groups in both countries, where teachers were identified who, due to their personal characteristics and pedagogical practices developed throughout their professional experience and driven by individual interest, demonstrated high sensitivity to children's emotions. This sensitivity facilitated the implementation of the practices suggested in this study: emotional validation and the establishment of affective bonds.

Considering our results and the discussion derived from the existing literature, we can conclude, within the limitations of the study, that our training program has clear potential to improve specific aspects of classroom practice in early childhood/ preschool education. Its broader implementation in the future could be important for the effective inclusion of emotional validation activities in the classroom, which could, in turn, contribute to better overall development in children and, more specifically, to the reduction or improved resolution of classroom conflicts.

Data availability statement

The datasets presented in this article are not readily available due to data protection regulations, in accordance with the applicable legislation on personal data protection. To access specific variables, please contact the first author (CP) and the last author (EL). Requests to access the datasets should be directed to cvargasp@correo.ugr.es, elizarte@ugr.es.

Ethics statement

The studies involving humans were approved by Research Ethics Committee of the University of Granada (reference number: 3300/CEIH/2023). The studies were conducted in accordance with the local legislation and institutional requirements. Written informed consent for participation in this study was provided by the participants' legal guardians/next of kin.

Author contributions

CVP: Writing – review & editing, Writing – original draft. JGP: Writing – review & editing, Supervision, Writing – original draft.

EJLS: Supervision, Writing – original draft, Writing – review & editing, Formal analysis.

Funding

The author(s) declare that financial support was received for the research and/or publication of this article. This research was conducted within the framework of a Paulo Freire doctoral fellowship awarded to the first author by the Organization of Ibero-American States for Education, Science, and Culture (OEI) (OEI grant number: CC41_21) and the University of Costa Rica (UCR) (UCR contract number: OAICE-37-2022). The grant awarded by the University of Costa Rica includes funds that may be used to cover publication costs. None of the funding institutions participated in the study design, data collection, analysis, interpretation of results, or writing of the manuscript. With this grant, the doctoral thesis “Development of emotions in childhood: design and pilot of a teacher training program based on the establishment of affective bonds and emotional validation for preschool education in Spain and Costa Rica” was developed within the Doctoral Program in Education Sciences at the University of Granada, under the supervision of Dr. José Gijón Puerta and Dr. Emilio J. Lizarte Simón.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Generative AI statement

The authors declare that no Gen AI was used in the creation of this manuscript.

Any alternative text (alt text) provided alongside figures in this article has been generated by Frontiers with the support of artificial intelligence and reasonable efforts have been made to ensure accuracy, including review by the authors wherever possible. If you identify any issues, please contact us.

Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

Supplementary material

The Supplementary material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/feduc.2025.1613256/full#supplementary-material>

References

- Ainsworth, M. S., and Bowlby, J. (1991). An ethological approach to personality development. *Am. Psychol.* 46, 333–341. doi: 10.1037/0003-066X.46.4.333
- Alonso Hernández, A. J. M., and Vinat, M. F. C. (2018). Convivencia en el ámbito educativo: Aplicación de un programa basado en la empatía, la educación emocional y la resolución de conflictos en un instituto español de enseñanza secundaria. *Cuestiones Pedagógicas. Rev. Cienc. Educ.* 27, 97–112. doi: 10.12795/CP.2018.127.06
- Alvarado, A. J. (2022). *Caracterización de las relaciones docente-niño en centros de desarrollo infantil del departamento del Atlántico: un análisis secundario de datos desde la perspectiva de los docentes en servicio*. Available online at: <http://hdl.handle.net/10584/11353>
- Ambrona, B., and Márquez, M. T. (2012). Eficacia de un programa de educación emocional breve para incrementar la competencia emocional de niños de educación primaria. *Rev. Esp. Orientac. Psicopedag.* 23, 39–49.
- Aponte, C. (2022). *Psychology today*. Do Not Validate Unexamined Emotions. Available online at: <https://www.psychologytoday.com/us/blog/marriage-equals/202204/do-not-validate-unexamined-emotions>.
- Browne, E., and Keeley-Browne, L. (2009). Training to teach in the learning and skills sector: From threshold award to QTLS. London, UK: Pearson Education.
- Cipriano, C., Strambler, M. J., Naples, L. H., Ha, C., Kirk, M., Wood, M., et al. (2023). The state of evidence for social and emotional learning: a contemporary meta-analysis of universal school-based SEL interventions. *Child Dev.* 94, 1181–1204. doi: 10.1111/cdev.13968
- Cornejo-Chávez Araya-Moreno, R., Vargas-Pérez, S., and Parra-Moreno, D. R. (2021). La educación emocional: Paradojas, peligros y oportunidades. *Rev. Saberes Educ.* 6:1. doi: 10.5354/2452-5014.2021.60681
- Damasio, A. (2005). *El error de descartes*. London, UK: Penguin Books.
- Danao, M. (2024). *11 essential soft skills in 2024 (with examples)*. Forbes Advisor. Available online at: https://www.forbes.com/advisor/business/soft-skills-examples/#what_are_soft_skills_section.
- Darwin, C. (1859). *On the origins of species by means of natural selection*.
- Darwin, C. (1871). *Sexual selection and the descent of man*.
- Darwin, C. (1872). *The expression of the emotions in man and animals with illustrations*.
- Dawkins, R. (1976). *The selfish gene*.
- De Leersnyder, J., Boiger, M., and Mesquita, B. (2013). Cultural regulation of emotion: individual, relational, and structural sources. *Front. Psychol.* 4:55. doi: 10.3389/fpsyg.2013.00055
- Denham, S. A., Bassett, H. H., Zinsner, K., and Wyatt, T. M. (2014). How preschoolers' social-emotional learning predicts their early school success: developing theory-promoting, competency-based assessments. *Infant Child Dev.* 23, 426–454. doi: 10.1002/icd.1840
- Ekman, P. (1972). "Universals and cultural differences in facial expressions of emotion BT" in Nebraska symposium on motivation. ed. J. Cole, vol. 19 (Lincoln: University of Nebraska Press), 207–283.
- Fatria, F., and Juwita, P. F. (2024). *Emotional validation in early childhood*. Paper Presented at the International Conference on Advanced Innovation STEAMR, Social, and Humanities, no. 1, 17–20.
- Fernández-Martín Moreno-Guerrero, A., Marín-Marín, J., and Romero-Rodríguez, J. F. D. (2022). Adolescents' emotions in Spanish education: development and validation of the social and emotional learning scale. *Sustainability* 14:3755. doi: 10.3390/su14073755
- Ferreira, G., and Ribeiro, P. R. M. (2019). A importância da afetividade na educação. *Doxa* 21, 88–103. doi: 10.30715/doxa.v21i1.12003
- Fruzzetti, A., and Ruork, A. (2018). "Validation principles and practices in dialectical behavior therapy" in *The Oxford handbook of dialectical behaviour therapy*. ed. M. A. Swales (Oxford, UK: Oxford University Press).
- Fruzzetti, A. E., and Shenk, C. (2008). Fostering validating responses in families. *Soc. Work. Ment. Health* 6, 215–227. doi: 10.1300/J200v06n01_17
- Gamelearn Team. (2023). *Gamelearn. El Origen de Las Soft Skills, Las Habilidades Que Determinan El Éxito*. Available online at: <https://www.game-learn.com/en/resources/blog/el-origen-de-las-soft-skills-las-habilidades-que-determinan-el-exito/>.
- Gijón, J. (2017). "Un modelo de nivelación de competencias en carreras técnicas" in *Formación Por Competencias y Competencias Para La Formación. Perspectivas Desde La Investigación*. ed. J. G. Puerta, 157–170.
- Herrera, J., and Rojas, D. (2022). *UNAM Global Revista. La Importancia de Las "Habilidades Blandas" En El Mundo Laboral*. Available online at: https://unamglobal.unam.mx/global_revista/la-importancia-de-las-habilidades-blandas-en-el-mundo-laboral/
- Horno, P. (2008). *Curso de Actualización Pediatría (AEPap (ed.); pp. 299–301)*. Exlibris Ediciones. Available online at: https://www.aepap.org/sites/default/files/aepap2008_libro_299-310_vinculo.pdf
- James, W. (1890). *The principles of psychology*. Henry Holt and Company. Available online at: <https://archive.org/details/theprinciplesofpsychologyvols12>.
- Kuo, J. R., Fitzpatrick, S., Ip, J., and Uliaszek, A. (2022). The who and what of validation: an experimental examination of validation and invalidation of specific emotions and the moderating effect of emotion dysregulation. *Borderline Personality Disord Emot Dysregul* 9:15. doi: 10.1186/s40479-022-00185-x
- Lambie, J. A., and Lindberg, A. (2016). The role of maternal emotional validation and invalidation on children's emotional awareness. *Merrill-Palmer Q.* 62:129. doi: 10.13110/merrillpalmer1982.62.2.0129
- Ley Fundamental de Educación. (1957). *Sistema Costarricense de Información Jurídica* (2006). Available online at: N.º 2160, del 25 de septiembre de. Available online at: http://www.pgrweb.go.cr/scij/Busqueda/Normativa/Normas/nrm_norma.aspx?param1=NRM&nValor1=1&nValor2=31427&nValor3=130529&strTipM=FN.
- Ley Orgánica 3/2020, de 29 de Diciembre. *Por La Que Se Modifica La Ley Orgánica 2/2006, de 3 de Mayo, de Educación*. (2020).
- Ley Orgánica 8/2013, de 9 de Diciembre. *Para La Mejora de La Calidad Educativa*. (2013).
- Linehan, M. M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*. New York: Guilford Press.
- Lizarte, E. J. (2015). *Estudio de las competencias profesionales del educador social. Un reto para la formación en la Educación Superior* in *Formación por competencias y competencias para la formación: perspectivas desde la investigación*. ed., J. Gijón. Síntesis, 183–194.
- Lizarte Simón, E. J., Khaled Gijón, M., Galván Malagón, M. C., and Gijón Puerta, J. (2024). Challenge-obstacle stressors and cyberloafing among higher vocational education students: the moderating role of smartphone addiction and maladaptive. *Front. Psychol.* 15:1358634. doi: 10.3389/fpsyg.2024.1358634
- LoCasale-Crouch, J., Vitiello, G., Hasbrouck, S., Cruz Aguayo, Y., Schodt, S. C., Hamre, B., et al. (2016). Cómo medir lo que importa en las aulas de primera infancia: un enfoque sobre las interacciones educadora-niño. *Pensamiento Educ.* 53, 1–14. doi: 10.7764/PEL.53.1.2016.6
- Matsumoto, D., Yoo, S. H., Fontaine, J., Anguas-Wong, A., Arriola, M., Ataca, B., et al. (2008). Mapping expressive differences around the WorldThe relationship between emotional display rules and individualism versus collectivism. *J. Cross-Cult. Psychol.* 39, 55–74. doi: 10.1177/0022022107311854
- Ministerio de Educación Pública. (2014). *Programa de estudios de educación preescolar*. Imprenta Nacional. Available online at: https://www.mep.go.cr/sites/default/files/media/educacion_preescolar.pdf.
- Ministerio de Educación Pública. (2015). *Política curricular: Educar para una nueva ciudadanía: fundamentación de la transformación curricular costarricense*. Ministerio de Educación Pública. Available online at: <https://www.mep.go.cr/sites/default/files/2022-07/transf-curricular-v-academico-vf.pdf>.
- Ministerio de Educación Pública. (2016). *Política educativa: La persona, centro del proceso educativo y sujeto transformador de la sociedad*. Ministerio de Educación Pública. Available online at: <https://www.mep.go.cr/sites/default/files/2022-06/politicaeducativa.pdf>.
- Mondi, C. F., Giovanelli, A., and Reynolds, A. J. (2021). Fostering socio-emotional learning through early childhood intervention. *Int. J. Child Care Educ. Policy* 15:6. doi: 10.1186/s40723-021-00084-8
- Nunnally, J. C., and Bernstein, I. H. (1994). *Psychometric theory*. 3rd Edn. New York: McGraw-Hill.
- Oron, J., Coello de Portugal, S. N.-R., and Luis, E. (2020). Emotional education for personal growth in the early years. *J. Theor. Philos. Psychol.* 41, 115–130. doi: 10.1037/teo0000150
- Panksepp, J. (1998). "Affective neuroscience: The foundations of human and animal emotions" in *Affective neuroscience: The foundations of human and animal emotions*. ed. J. Panksepp (Oxford, UK: Oxford University Press).
- Patricio, J. N., Barata, M. C., Calheiros, M. M., and Graca, J. (2015). A Portuguese version of the student-teacher relationship scale - short form. *Span. J. Psychol.* 18, 1–12. doi: 10.1017/sjp.2015.29
- Pianta, R. C. (1992). *Student teacher relationship scale (STRS)*. Virginia: University of Virginia. Available online at: <https://education.virginia.edu/documents/ehdchild-parent-relationship-scale-short-form1992doc>.
- Pianta, R. C. (2001). *Student-teacher relationship scale: Professional manual*. Florida: Psychological Assessment Resources, Inc.

- Real Decreto 95/2022, 14561. (2022). Available online at: <https://www.boe.es/boe/dias/2022/02/02/pdfs/BOE-A-2022-1654.pdf>.
- Rogers, C. R. (1951). *Client-centered therapy: Its current practice, Implications and Theory*. Boston, MA: Houghton Mifflin.
- Rychen, D. S., and Salganik, L. H. (2002). *Definition and selection of competencies: theoretical and conceptual foundations (DeSeCo strategy paper)*. Swiss Federal Statistical Office. Available online at: <https://www.deseco.ch/bfs/deseco/en/index/02.parsys.34116.downloadList.87902.DownloadFile.tmp/oecd-deseco-strategy-paper-de-se-co-cericd20029.pdf>
- Shenk, C. E., and Fruzzetti, A. E. (2011). The impact of validating and invalidating responses on emotional reactivity. *J. Soc. Clin. Psychol.* 30, 163–183. doi: 10.1521/jscp.2011.30.2.163
- Titsworth, S., Margaret, M. Q., and Mazer, J. P. (2010). Emotion in teaching and learning: development and validation of the classroom emotions scale. *Commun. Educ.* 59, 431–452. doi: 10.1080/03634521003746156
- Tsai, J. (2024). “Culture and emotion” in Noba textbook series: Psychology (Noba textb). eds. E. Biswas-Diener and R. Diener (New York: DEF Publishers).
- Ulloa Evans, I., and Jones, L. M. (2016). The effects of emotional awareness training on teachers’ ability to manage the emotions of preschool children: an experimental study. *Escritos Psicol* 9, 1–14. doi: 10.24310/espsiescpsi.v9i1.13195
- UNESCO. (2024a). *Global report on early childhood care and education: the right to a strong foundation*. UNESCO.
- UNESCO. (2024b). *Un nuevo informe mundial de la UNESCO pone de relieve el papel crucial de la atención y educación de la primera infancia*. UNESCO. Available online at: <https://www.unesco.org/es/articles/un-nuevo-informe-mundial-de-la-unesco-pone-de-relieve-el-papel-crucial-de-la-atencion-y-educacion-de>.
- Vargas, C., Lizarte, E. J., and Gijón, J. (2022). “Revisión sistemática de programas de formación docente para el desarrollo de emociones en la edad preescolar” in *Investigación, innovación e inclusión educativa desde la praxis*. Eds. C. Rodríguez, M. Ramos, J. C. De la Cruz, J. J. Victoria. Dykinson, 129–140.
- World Economic Forum. (2023). *Future of Jobs Report 2023*. Available at: <https://www.weforum.org/reports/the-future-of-jobs-report-2023/>