education sciences

MDPI

Article

Emotional Sensibility Observation Scale: Measuring Quality Relationships and Early Childhood Educators' Emotional Perceptibility in Responding to Children's Cues

Wendy Saeme Lee

Sydney School of Education and Social Work, Faculty of Arts and Social Sciences, University of Sydney, Sydney, NSW 2006, Australia; wendysaeme.lee@sydney.edu.au; Tel.: +61-2-9351-6229

Abstract: An educator's ability and willingness to be perceptive and responsive to the cues of children in Early Childhood Education and Care (ECEC) settings can affect the quality of the relationships built. Although several instruments that aim to measure quality relationships currently exist, these instruments are often not exclusive to the educator–child dynamic, fail to be context-sensitive, and do not mitigate scope for observer subjectivity. The Emotional Sensibility Observation Scale (ESOS) was developed in collaboration with ECEC stakeholders (teachers, educators, centre directors, and researchers) in Australia to address the aforementioned gaps while acknowledging the unique relationships between educators and children in ECEC settings. It is proposed in the paper that the ESOS may serve as a useful tool for researchers and educators to assess Early Childhood (EC) educators' ability to accurately read and respond to children's cues and to measure the quality of relationships built over time.

Keywords: early childhood education; child development; emotional development; relationships; educator–children relationships; teacher–child relationships; emotional cues; preschool-aged children

check for updates

Citation: Lee, W.S. Emotional Sensibility Observation Scale: Measuring Quality Relationships and Early Childhood Educators' Emotional Perceptibility in Responding to Children's Cues. *Educ. Sci.* **2023**, *13*, 9. https://doi.org/10.3390/educsci13010009

Academic Editors: Aleksander N. Veraksa and Yulia Solovieva

Received: 13 November 2022
Revised: 15 December 2022
Accepted: 15 December 2022
Published: 21 December 2022

Copyright: © 2022 by the author. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

1. Introduction

With research consistently showing that the quality of the educator–child relationship has a significant impact on the provision of quality Early Childhood Education and Care (ECEC) [1], Early Childhood (EC) educators must ensure that building and maintaining quality relationships with children is prioritised. Educator–child relationships have been well documented and recognised in Australia's National Quality Framework (NQF) as a critical contributor to ECEC quality. The NQF specifies standards in which one of the seven quality areas (Quality Area 5) is concerned with establishing quality relationships with children [2]. Without such relationships, children's ability to participate in their learning environments can be impeded.

2. The Need for an ECEC-Specific Instrument to Measure Educator–Child Relationships

It is widely recognised that young children need emotionally secure and enriching relationships with adults in order to develop, learn, and flourish to their maximum potential. The question of what the development of such relationships entails in the ECEC context is therefore an important one, and this paper seeks to explore how this unique relationship is understood, built, and observed over time.

A child's environment needs to consist of adults who are attentive, responsive, and physically and emotionally 'available' [3,4]. An 'emotionally available' adult can be defined as one who can provide opportunities for both him or herself and the child in order for them to build a nurturing relationship with one another [3]. In this sense, an emotional relationship can be defined as the relationship built between the educator and child pair [3,5], in which the educator assists the child in feeling safe, secure, and positive, which are the

foundations for a child to develop and strive in all developmental areas and domains [5,6]. Shivers [7] (p. 29) defines 'emotional relationship' as the educator responding to the child's emotional cues and developing an "emotional investment" in the relationship with the child. In addition, it involves being 'emotionally available', which requires specific skills and approaches that are adopted by the adult to build quality relationships with children. Adults needs to be attuned to the child's cues and prompts, and adopt developmentally appropriate approaches to build relationships based on the individual needs of the child. An adult must display *Emotional Sensibility* (which is defined in the forthcoming section) when interacting with children in all aspects of their routines. Adults must be emotionally aware and engaged as well as empathetically understand and feel what a child's distress means for that child in that moment in time.

The correlation between secure relationships with adults and a child's developing emotional competence has been highlighted in previous studies. Colle and Giudice's [8] research showed that children who had formed quality relationships in the early years with adults tended to show high levels of resiliency. Other studies have shown that children who build quality relationships with their adult caregivers are able to demonstrate a higher level of tolerance [9], experience less distress [4], and are able to explore their environment more effectively [4,7]. How consistent the relationship is and how a child experiences this in an ECEC setting with their educator may positively or adversely affect a child's emotional competence [10].

Having access to educators who have the ability and willingness to form high quality relationships with the children in their care is an emotional need that every child requires. In exploring this paramount issue, the term 'Emotional Sensibility' is used in this paper, defined as the ability and capacity to understand, feel, and respond to the cues and prompts of another. Educators must focus on exercising Emotional Sensibility in their relationships with children. However, in order to do this educators need to be knowledgeable and supported in developing the skills and capacity to build such high-quality relationships with all children in their care. Thus, in designing the ESOS it was hoped that this tool would contribute to four goals in ECEC: first, to provide a tool to measure the quality of relationships that is *specific* to the 'educator–child' relationship in ECEC contexts; second, for ESOS to be used as a professional development tool for current EC educators; third, for the ESOS to be used as a learning tool for future EC pre-service educators; and last, to advocate for the importance of building quality relationships with children in the early years. This responsibility and 'skill' is one which EC educators must initiate and be competent in.

3. The Role of 'Emotional Sensibility' in Building Quality Relationships

Quality relationships with the primary caregiver can predict a child's emotional functioning and development; brain imaging studies [11] have shown that children have a "neurological basis to the human need" to build and develop a secure attachment [12] (p. 85). On the contrary, when the adult fails to build a quality relationship with the child, this may cause the child to experience stress, which in turn may lead to the loss of certain synaptic connections in the brain at the time when the child should be building and strengthening new connections [13,14].

Shifting from the home to the ECEC context, for many children enrolling in an ECEC centre is their first time being supported, cared for, and taught by an adult other than the primary and consistent adult figure. Children's enrollment in EC centres has increased both in Australia and internationally, and the implication of such "major social change" for children in the early years means that children's relationship with non-familial adults should be explored [10] (p. 8). Researchers such as Robyn Dolby have applied the attachment theory to the childhood educational context in what is called the 'circle of security' [14]. Jools Page [15,16] adopted the notion of 'professional love' to describe educator–child relationships. Although retaining the notion of attachment with children in the educators' care, Page [15,16] emphasises the need for EC educators to recognise the professional aspect of educator–child relationships, which differ from a parent–child relationship. While

acknowledging and welcoming the contributions made by previous researchers, the ESOS scale introduces a new dimension and perspective that is exclusive to the ECEC setting, in particular *how* this relationship should be observed and measured.

4. Encompassing 'Emotions'

Children, even as young as infants, are capable of picking up on the emotional cues of others [17], and have the ability to differentiate between a happy and an angry face, such as through the smiles or frowns that adults may display. By preschool age, children are able to associate emotions with the tone, facial expressions, and other observable features of another. Educators are generally aware that their emotional responsiveness plays a crucial role in facilitating and supporting children's emotions and their overall development [10,18,19].

The importance of the educator's resilience in building quality relationships becomes apparent when the adult ignores a child's emotional cue. For example, it has been found that children in the care of educators who are emotionally unresponsive in meeting the needs of the child are more likely to "give up" in attempting to "get close" to these adult figures [10] (p. 9). Moreover, the quality of the educator–child relationship in the early years has been shown to be a predictor of "later relationship quality"; that is, children who build "lower quality relationships in preschool" began their formal schooling trajectory with a "deficit" [20] (p. 510).

To exhibit Emotional Sensibility when building quality relationships, the ESOS proposes that the educator's ability in the following five components needs to be explored: (1) Employing Perceptual Acuteness; (2) Employing Empathetic Discernment when Responding to a Child; (3) Acting with Moral Intent; (4) Using Effective Verbal and Non-Verbal Communication when Relating to a Child; and (5) Within a Quality Relationship, Sensibly Facilitating Children's Emerging Learning Opportunities. The components and definitions used in the ESOS are in large measure a distillation of the descriptors of quality relationships found in the literature noted in the paper, while attempting to address the current caps of existing tools to measure quality relationships.

5. An overview of Existing Tools and the Need for an ECEC-Specific Instrument to Measure Educator–Child Relationships

Current instruments that aim to measure quality relationships between adults and children are often transferrable across multiple contexts and relationships. For example, the same scale is used with mother–child, father–child, step-parent–child, nanny–child, foster parent–child, and educator–child dyads. However, it is questionable whether the same elements and features should be used when observing and measuring personal relationships as opposed to professional relationships. Unlike pre-existing tools, the ESOS was specifically designed for use within ECEC contexts. The ESOS is unique in that it recognises the professional aspect of the educator's roles and aims to address the specific needs of the professional cohort (such as group-care setting, staff–child ratios, etc.) while specifically taking into consideration the significance of the early childhood years.

Table A1 provides a list of instruments, measures, and frameworks that are used internationally when measuring education and care quality in various environments. This table was devised using summaries given in Halle, Whittaker, and Anderson [21] and Halle, Anderson, Blasberg, Chrisler, and Simkin [22]. Only measures used for later toddler ages and preschool-aged children have been included.

While all nineteen instruments include a 'relationship' component, there are variations as to how much emphasis on measuring these relationships are provided. Part of the reason for the considerable variation is the differing purposes for which the instrument was designed. For example, some of these tools were designed for research purposes as opposed to accreditation purposes, and others for professional development uses. Although several of the instruments may overlap in the context in which it is used, the instruments are varied as to the 'components' or 'traits' they aim to capture.

In the Australian context, the Australian National Quality Standard Assessment and Rating tool is used to assess and rate the quality of ECEC centres and to guide the improvement of the centre's overall quality, such as the centre's environment or programming. In assessing the centre's quality, the NQF includes seven quality areas in which one of the seven quality areas is dedicated to implementing 'relationships with children (quality area 5)'. It is evident that the ideal quality of educator–child relationship requires, for example, attachment, which emphases that "by interacting positively and meaningfully with children, educators help children to feel accepted and to develop a sense of attachment and trust" [2] (p. 228).

6. Implications for the Design of the ESOS

Current instruments were reviewed to explore how these tools aim to capture both the tangible and intangible factors that contribute to defining and measuring 'quality' in adult/educator–child relationships. Upon exploring these current tools that were used to measure quality relationships, the descriptors and the criteria in which relationships were being measured against were not sufficient in terms of recording or providing a comprehensive description of the EC educators and children's individualised relationships.

As is evident in Table A2, when attempting to measure the quality of relationships between EC educators and children the emotional reciprocity between educators and children should be included. Furthermore, the 'positivity' conveyed in an educator's emotional expression and response is regarded as significant, as much as 'avoidance' is noted as a negative trait. Experiences during emotional exchange need to be carefully addressed to ensure that their description is consistent with contemporary understandings of emotions while simultaneously taking into account the diverse needs of children, including their linguistic, cultural, and familial backgrounds. Emotions and relationships are very much intertwined. Thus, the emotional exchange and reciprocities of adult–child pairs were incorporated when designing and undertaking a pilot run of the scale.

Although certain existing instruments may assist in supporting educators in measuring the quality of relationships built with children in their care, these instruments mostly provide an overall quality rating of the ECEC centre's overall performance/quality rather than the individual EC educator, which prevents opportunities for educators to reflect on their practices and to undertake professional development catered to their needs. Furthermore, other instruments were primarily developed for research purposes. Thus, another implication when designing the ESOS scale was to bridge these aforementioned gaps and allow for greater practicality and consistency when measuring relationships by guiding the practices of pre-service and current EC educators, accreditation supervisors and mentors, assessment and ratings officers, supervising teachers, centre directors, and professional development teams in EC.

Another implication in the design of the ESOS was the aim of eliminating personal biases and subjectivity as much as possible. It may be argued that an educator assessing his or her own ability to form quality relationships using scale may be inaccurate. Thus, use of the ESOS scale by an experienced EC educator (e.g., an educational leader, the mentor of an EC educator) is encouraged, or alternatively, one who is trained in using the scale with EC educator experience. Furthermore, for professional development purposes, it is encouraged that interactions be recorded with consent, and that the EC educator be allowed to review their approaches with their mentor. When piloting the study using the ESOS scale, educators had the opportunity to reflect on the cues of children that they missed.

The limitations of currently existing tools were further explored in order to guide the design of the ESOS. Current instruments may not seem to be 'user-friendly' for everyday use by EC educators. Current instruments may adopt research jargon or scales that are not always applicable in an ECEC group setting. These instruments may additionally fail to acknowledge the environmental factors that contribute to the development of quality relationships built, such as the number of educators and children in the room, which can vary greatly according to the centre, room size, children's ages, and staff–child ratios.

Several existing instruments use the Likert scale (for example, a seven-point scale in CLASS and ECERS-R and a four-point scale in ORCE) to provide either an average or a sum score. Although instruments that do adopt this method may aim to reduce subjectivity, it does not necessarily assist in capturing an individual educator's understanding and their skills in building quality relationships with children. Through the review of the current instruments and literature, it became clear that the conceptualisation of 'quality relationships' and the design of the ESOS scale must be able to both analyse and assist in informing individual EC educators' development as to how their practice impacts the quality of their approach in building quality relationships. The core processes of quality professional relationships in ECEC should be that the educator consistently displays high levels of Emotional Sensibility when engaging with all children in their care.

The ESOS scale was not designed to argue that current EC educators currently do not exhibit Emotional Sensibility when building relationships with children. Rather, the idea is that the way in which these special and unique relationships are observed and measured should be re-examined in order to correctly identify any gaps.

7. Identifying EC Educators' Own Dispositions That Enable Quality Relationships

The ESOS aims to identify EC educators' different dispositions that lead to the building of high- or low-quality relationships with children. When piloting the ESOS, it was observed that certain educators were able to exhibit high-quality relationships in one 'area' (such as making positive eye contact) while being unable to simultaneously respond verbally to the child's prompts.

Currently existing instruments seek 'evidence' of adults' behaviours (e.g., CCIS, CIS, CLASS Toddler, ORCE). With the ESOS, the aim was to identify educators' professional capacity and the dispositions that enable them to approach children with the correct level of sensitivity and responsiveness in a manner that is suitable for the context, most importantly for the child's needs in that moment of time.

In the ESOS, a rubric with four rankings in each subscale was used on account of the strengths of using a grading rubric as compared to other scaling methods such as binary scoring systems (either a 'yes' or a 'no' system) or the Likert scale. With a rubric style, the ESOS scale provides different qualities that are relevant to each component. The four descriptors, in order from low to high quality, are 'inappropriate', 'partially', 'appropriate', and 'proficient'. Within these descriptors there are multiple examples of interactions identified as approaches that were either unsuitable or suitable for the context. The four descriptors were designed firstly to enable the observer to make a swift yet a clear judgment as to how the educator exhibited or did not exhibit the descriptors for the component. However, it must be noted that these four descriptors must not be used without understanding the examples for each component and the explanation as to what type of observable traits are included in the four descriptors.

An element that further increases the efficacy and further inform the observer on the quality of interactions observed is that educators are provided with the opportunity to clarify any part of the interactions that they had with the child. For example, a particular child may need extra time to process a question initiated by the educator, and the educator, being the child's main teacher in the room, may be able to respond accordingly to that child's needs. However, the observer may mistake this as 'silence' or failing to initiate further conversation with the child. Thus, the ESOS scale is unique in comparison to current tools in that it aims to consider the individual and diverse needs, interests, and strengths of both educators and children.

8. Results and Discussion

8.1. Participants, Ethical Procedures, and Inter-Coder Reliability Analysis

The ESOS was used to analyse 64 video recordings of eight different educator–child dyads in Australian ECEC centres. The same dyads were observed once a week for eight

consecutive weeks in the same 'scenario'. For example, in the first week each of the eight educator–child dyads were observed during meal time.

Consent from multiple EC stakeholders were undertaken prior to the video recordings. Written consent from the EC centre directors, educators, child participants' parents, and parents of non-participant children were sought. As the video recordings did not take place in a controlled environment (e.g., a lab or a pre-made 'set'), and rather in the most natural and familiar setting for both the educator and child, there was a possibility that non-participant children might appear in the background of the video recordings. Thus, consent from non-participating children's parents were sought as well. Furthermore, as the child participants were between the ages of 3–6 and had the ability to express their willingness to be recorded or not, the researcher asked the children for verbal consent each week. As the researcher was an EC educator and teacher for over twelve years, the researcher had ample experience in asking for consent in an age and developmentally appropriate manner, and was guided by the ethical procedures when researching with children. If a child refused, the recordings did not take place and were attempted again later in the day, or the following day.

An inter-coder reliability analysis was undertaken with training by two other researchers. Training was provided by the researcher of the study. The objective of the inter-coder reliability analyses was to determine whether the ESOS was effective in addressing the gaps of the currently existing tools, whether it captured the quality of the relationships built with children, and to test the efficiency and practicality of using the tool. Two independent trained coders were able to assess the quality of educator–child interactions, reaching identical or near-identical quality ratings.

After viewing video segments of educator–child interaction videos, each coder assessed the observed interactions using the ESOS and was asked to provide a reason for their assessment of the educator–child dyads. Moreover, following the inter-coding session, each coder was provided with opportunities to discuss their experience of using the ESOS and to provide feedback on how the training might be improved for those using it in the future. Inter-coder reliabilities were calculated in both frequency-based and duration-based modes. For the frequency-based inter-coder reliability calculation, Cohen's Kappa (κ) value was used [23]. For the duration-based mode, the percentage of agreement was calculated for each component. This was calculated by dividing the length of video segments assigned the same coding by two coders by the total length of video the two coders assessed.

8.2. Five Components of Emotional Sensibility Observation Scale

As a result of a critical review of the existing literature, including an analysis of existing instruments that measure the quality of EC educator–child relationships and examination of the data collected using the ESOS, five critical features of Emotional Sensibility were identified. These were then incorporated as the five components of the ESOS. The construction of the ESOS incorporated conceptual and empirical considerations, and each component was refined and reviewed again based on the findings from the study.

8.2.1. Component 1: Employing Perceptual Acuteness

In this component, the observer is interested in observing whether the educator employs perceptual acuteness and is able to perceive positive and negative emotional cues of the child, both in a 1:1 interaction and within a group setting.

There are considerable individual differences in educators' ability to 'discern' and subsequently 'make meaning' of instances of emotion as they unfold during educator–child interactions. For example, an educator who is perceptually acute is able to (i) perceive negative emotional cues from children; (ii) perceive positive emotional cues from children; (iii) perceive social and relational cues from children, and; (iv) perceive the emotional dynamics within a group of children.

However, an educator's perceptual awareness does not necessarily lead to optimal reactions. Rather, their responses are selected as a result of external factors (e.g., environment,

resources, group sizes, staff–child ratios) and the educator's own history of learning and professional experiences. Because of this potential discrepancy between 'perception' and 'subsequent action', a distinction has been made between 'perceptual acuteness' and the 'response' components. Furthermore, in order to assist observers and educators in seeing this important prerequisite to action, in the ESOS an explicit distinction has been made between the first two components, namely, perceptual acuteness and empathetic discernment.

8.2.2. Component 2: Employing Empathetic Discernment When Responding to a Child

In this component, the observer is interested in observing the empathetic discernment of the educator: Does the educator have discernment and move in harmony and pace of the child? Does the educator act sensibility when responding to challenging behaviours? For example, an educator who is able to respond with empathic discernment may adopt responses or strategies that clearly contribute to healthy social and emotional development by helping the child's understanding of her/himself or assisting the child understand how others might feel.

In describing the range of different qualities in educators' responsiveness to children, their capacity for 'empathetic discernment' was observed as a key component. Noticing an event of significance initiates an educator's engagement with a child. The ESOS is not simply concerned with whether an educator displays reactive responses to the children; rather, it is inclusive of the educator's willingness and ability to accurately 'read' a child's cues, prompts, and motives regardless of whether they are displayed verbally or non-verbally. The educators are then observed to determine whether they are able to respond to the child's interest, learning, and development.

8.2.3. Component 3: Acting with Moral Intent

In this component, the observer is interested in observing the moral intent of the educator: Does the educator display a moral disposition, act with caring judgment, and enable the child's autonomy and agency? Is the educator able to exercise genuine sincerity, empathy, care, and compassion?

A few existing observation instruments include values or principles that should underpin the relationship between children and educators, which include acceptance, respect, ensuring the safety of the child (both emotionally and physically), incorporating children's voices, and demonstrating an understanding of children's rights. However, in these instruments it is ambiguous as to how the educator should 'evidence' these traits in both spontaneous and planned experiences with children. A highly sensible educator is both aware of and considers these values and principles in their decision-making processes when interacting with children, and withholds the ability to act swiftly and accordingly.

8.2.4. Component 4: Using Effective Verbal and Non-Verbal Communication When Relating to a Child

In this component, the observer is interested in observing whether the educator uses effective verbal and non-verbal communication when relating to a child: Does the educator maintain meaningful and positive interactions in their verbal and non-verbal communication? Does the educator effectively use non-verbal communication (e.g., positive eye contact, physical proximity, positioning)? Does the educator use developmentally appropriate wording to scaffold, support, and further children's learning? Does the educator follow the prompts of the child (e.g., invitation to join in their play episode)? Does the educator efficiently and creatively use their voice (e.g., variations in their volume, pace, pitch, intonation) according to the context? How does the educator inform the children to reassure that the educator is available to them?

Emotionally sensible educators should withhold the skills to show effective and emotionally responsive use of verbal and non-verbal communications when relating to a child. In addition, they should effectively and fluently use non-verbal communication in

order to maintain the child's emotional engagement with learning. The educator in this component is observed in their ability to model positive behaviours.

8.2.5. Component 5: Sensibly Facilitating Children's Emerging Learning Opportunities within a Quality Relationship

In this component, the observer is interested in observing the educator's willingness and ability to support children's emerging and developing skills. Does the educator augment teachable and learnable moments by acutely perceiving possible learning opportunities as they arise and facilitate the child in extending her/his inquiry? Does the educator create an emotionally and a physically safe environment for learning? Does the educator encourage children to share their different knowledge, skills, and understanding with peers and other educators?

EC educators carry out daily routines with children throughout the day, including conducting group times, assisting children during meal times, setting up experiences, supervising children, and engaging in spontaneous teachable moments. An educator who is able to sensibly scaffold children's learning opportunities is able to do so in any part of the child's routine and view each routine as a learning opportunistic event. A child's learning opportunity is not confined to planned or organised learning programmes (e.g., painting). Rather, children's learning opportunities can emerge at any time of the day. An emotionally insensible educator may not be able to perceive such opportunistic events, whereas an emotionally sensible educator may be able to discern emerging learning opportunities, and hence facilitate children in furthering their interests and explorations.

9. Limitations of the ESOS Scale

The ESOS scale was used to analyse a small number of research participants as part of small-scale study. The next aim is to trial the ESOS scale by expanding the participant pool in multiple and diverse EC centres. In addition, although the diversity represented in the sample of participants was sufficient to capture rich data and critical features of emotional sensibility that are necessary for an EC educator to build quality relationships with children, it is hoped that the ESOS scale can be further refined and reviewed by consulting further EC stakeholders (EC educators, assessors, accreditation mentors, and researchers) to trial in various geographic locations (rural, semi-rural, and urban), children with special needs, and children of infants and toddler ages (under 3 years of age). Furthermore, although the ESOS can be applicable for use in international EC educational contexts, the distinctiveness of each cultural approach and context in ECEC practices should be considered. For example, a 'sixth' component could be added to the ESOS scale which can be emendable to fit the context of the centre or community, such as the cultural, religious, and linguistic needs of the educator and child.

The researcher further acknowledges that the scale can be refined to ensure that the components reflect the most recent research and ECEC practices. For example, as Fenech et al. [24] and Page [15,16] note, the notion of 'love' may contribute to the understanding of quality in ECEC. Thus, the researcher will ensure that the ESOS will be reviewed for further development to reflect the latest knowledge and theory in EC.

10. Conclusions

By analysing educator–child dyads using the ESOS, the present study has captured the dynamic patterns of each educator–child relationship built over a period of eight weeks, including findings that showed the following: (1) educator–child interactions were reciprocal and showed a two-way exchange when measuring the dyad's verbal communication, however, emotional gestures and facial expressions were not as evident; (2) educators who scored either high or low on their ability to respond to the children's needs produced similar scores week after week; (3) recurring patterns emerged in the interactions of each educator–child dyad, such that each pair formed unique interaction patterns of their own; finally, (4) educators who scored on the lower end of the ESOS

showed a mismatch between their willingness to build quality relationships with children and their awareness or ability to implement approaches that contributed to building quality relationships with children. It seemed that all educator participants were in agreement that building quality relationships with children was important and a priority; however, this did not necessarily mean that they exhibited high capabilities to do so.

With many existing tools that aim to measure quality relationships between adults and children, there is a great need to distinguish the unique elements and features needed to capture relationships of EC educators and children in the early years. It is hoped that discussion of the different methods of observing and measuring educator–child relationships and the introduction of the new ESOS scale will bring new perspectives and ideas, and continue the discussion surrounding the consequences and implications for pedagogy and practice for researchers and EC practitioners.

Funding: This research was partially funded by University of Sydney internal funding for Higher Degree Research students (Postgraduate Research Support Scheme).

Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki, and approved by the Ethics Committee of University of Sydney (approval code: 2016/056 and date of approval: 26 February 2016) for studies involving humans.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: Data supporting reported results can be found in the author's PhD thesis, in the University of Sydney theses depository.

Conflicts of Interest: The author declares no conflict of interest.

Appendix A

Table A1. Early childhood education quality measures/frameworks that include quality in educator–child relationships.

Name of Instruments	Relationship Context [1]		Purposes [1]			Dimensions of Observations that Are Related to the Quality of Relationship
	Centre-Based	Home-Based	Improv-ement	Monitoring/ Accreditation	Research/ Evaluation	
Assessment Profile for Early Childhood Programs (APECP) [25]	x		x		x	• *Interacting*: positive physical and verbal interactions; teachers' responsiveness
Assessment Profile for Family Child Care Homes (APFCCH) [25]		x	x		x	• *Interacting*: provider's ability to initiate warm and affectionate relationship with the children; facilitate learning; respond to children's needs
The Child Care Assessment Tool for Relatives (CCAT-R) [26]		x			x	• *Support for social/emotional development* • *Support for cognitive development*
Early Childhood Child Care HOME (EC-CC-HOME) [27]		x		x	x	• *Caregiver responsivity* (8 items) • *Modelling of social maturity* (7 items) • *Acceptance of child* (4 items)

Table A1. *Cont.*

Name of Instruments	Relationship Context [1]		Purposes [1]			Dimensions of Observations that Are Related to the Quality of Relationship
	Centre-Based	Home-Based	Improv-ement	Monitoring/ Accreditation	Research/ Evaluation	
Child Caregiver Interaction Scale—Revised Edition (CCIS) [28] [2]	x	x	x	x	x	• *Emotional domain* (6 items): tone of voice/sensitivity, acceptance/respect for children, greetings, enjoys and appreciates children, and expectations for children • *Connections with a wider world* (3 items): arrival, promotion of prosocial behaviour/social emotional learning
Child-Caregiver Observation System (C-COS) [29]	x	x			x	• *Caregiver's responsiveness to the Focus Child*
Child Development Program Evaluation Scale (CDPES) [30]	x			x	x	• *Social emotional development* (1 item) and *Personal interaction* (1 item) within the domain of Child Development Curriculum (15 items)
Child/Home Early Language & Literacy Observation (CHELLO) [31]		x	x		x	• *Adult affect* (3 items), *Adult-Child language interaction* (4 items) within the domain of Support for Learning • *Responsive strategies* (3 items), *Monitoring children's progress* (3 items) within the domain of Adult Teaching Strategies
Caregiver (Adult) Interaction Scale (CIS) [32]	x	x			x	• *Sensitivity* (10 items) • *Harshness* (8 items) • *Detachment* (4 items) • *Permissiveness* (4 items)
Classroom Assessment Scoring System: Toddler Version (CLASS Toddler) [33] [2]	x		x		x	• *Positive climate* (3 indicators) • *Negative climate* (4 indicators) • *Teacher sensitivity* (3 indicators) • *Regard for child perspectives* (3 indicators) • *Behavior guidance* (3 indicators) • *Facilitation of learning and development* (3 indicators) • *Quality of feedback* (3 indicators)
Child Observation Form and Scale (COFAS) [30]	x			x	x	*Socio-emotional* (11 items) • Give affectionate physical contact to child; • Make activity suggestion to child; • Physically punish child (-); • Use food as a reinforcement (-); • Let other children make fun of or ridicule a child (-); • Verbally criticize, scold or threaten a child (-); • Isolate a child physically (-); • Ignore a child's request (-); • Interrupt a child's activity and prevent its completion (-); • Leave the child alone (-) *Cognitive* (4 items) • Show impatience or annoyance with child's questions (-); • Use terms which are above a child's reasoning ability (-); • Deal in abstract concepts without concrete examples (-); • Show intolerance with a child's mistakes (-)

Table A1. *Cont.*

Name of Instruments	Relationship Context [1]		Purposes [1]			Dimensions of Observations that Are Related to the Quality of Relationship
	Centre-Based	Home-Based	Improv-ement	Monitoring/ Accreditation	Research/ Evaluation	
Early Childhood Environment Rating Scale –Revised (ECERS-R) [34]	x		x	x	x	• Staff-child interactions (1 item) • Interactions among children (1 item)
Family Child Care Envir-onment Rating Scale—Revised Edition (FCCE-RS-R) [35]		x		x	x	• *Provider-child interaction (1 item)*
Observational Record of the Caregiving Environment (ORCE) [36]	x	x			X	• *Sensitivity/responsivity* • *Intrusiveness/overcontrol* • *Detachment/disengagement* • *Stimulation of cognitive development*
The Preschool Classroom Im-plementation Rating Scale (PCI) [37]	x			x	x	*Teacher-child interactions (10 out of 14 items)* • Extend children's activities and problem-solving by adopting strategies (5 items) • Model new possibilities (1 item) • Refer child's questions and comments to other children (1 item) • Help children to do things for themselves when possible (1 item) • Balance between teacher talk and child talk (1 item) • Provide children with suggestions for coping with their feelings (1 item)
Quality of Early Childhood Care Settings: Caregiver Rating Scale (QUEST) [38]	x	x			x	• *Caring and responding (10 items)* • *Using positive guidance and discipline (9 items)* • *Does no harm (5 items)* • *Supporting social-emotional development (8 items)*
Supports for Social-Emotional Growth Assessment (SSEGA) [39]	x				x	• *Supportive teacher-child relationships (2 items)* • *Supports for emotional self-regulation (2 items)* • *Supports for children's positive social behaviour (3 items)* • *Supports for children's social understanding (2 items)*
Teacher Behavior Rating Scale (TBRS) [40]	x	x	x	x	x	*Sensitivity Behaviors (12 items)* • Sensitive response to children's signals • Encourages children to regulate their behaviour • Uses non-specific praise and encouragement (-) • Uses specific praise and encouragement • Deepens children's understanding • Fails to respond to comments and questions (-) • Sensitive response to children's affective signals • Response Style varies across children • Presence of negative language (-) • Presence of positive non-verbal behaviors • Presence of negative non-verbal behaviors (-) • Uses playful techniques to make cognitive activities engaging

Table A1. *Cont.*

Name of Instruments	Relationship Context [1]		Purposes [1]			Dimensions of Observations that Are Related to the Quality of Relationship
	Centre-Based	Home-Based	Improv-ement	Monitoring/ Accreditation	Research/ Evaluation	
The Australian National Quality Standard [2] [2]	x	x		x		*Area 5 Relationships with children* • 5.1.1 Positive educator to child interactions • 5.1.2 Dignity and rights of the child • 5.2.1 Collaborative learning • 5.2.2 Self-regulation

Notes: This table has been devised using the summaries given in [21,22]. Only measures used for upper toddler years and pre-school aged children care were included. Measures for infant and early toddler years care quality were not included. [1] Type of care and purposes are based on [21]. [2] Observations tools and measures published (or revised) after 2010 were added by the author.

Table A2. Necessary contributors or hinderers to the quality identified from instruments.

	Elements or Features	Instruments
Necessary contributors	Sensitivity/Responsiveness to children's needs, feelings and thoughts	APECP, APFCCH, CCAT-R, EC-CC-HOME, CCIS, C-COS, CDPES, CHELLO, CIS, CLASS Toddler, COFAS, ECERS-R, FCCERS-R, ORCE, QUEST, TBRS, NQS
	Intellectual stimulation embedded in interactions	APECP, APFCCH, CCAT-R, EC-CC-HOME, CCIS, C-COS, CDPES, CHELLO, CLASS Toddler, COFAS, ECERS-R, FCCERS-R, ORCE, PCI, QUEST, TBRS, NQS
	Support for positive emotional and social development	APECP, APFCCH, CCAT-R, EC-CC-HOME, CCIS, CLASS Toddler, ECERS-R, PIC, QUEST, SSEGA, TBRS, NQS
	Positive affect and atmosphere exhibited by educator and children	APECP, APFCCH, CCIS, C-COS, CHELLO, CIS, CLASS Toddler, COFAS, ECERS-R, FCCERS-R, TBRS, NQS
	Mutuality exhibited by sustained exchanges between an educator and a child	APECP, APFCCH, CCAT-R, CLASS Toddler, CLASS Toddler, FCCERS-R, ORCE, PCI, TBRS, NQS
	Values orientation	EC-CC-HOME (acceptance), CLASS Toddler (independence), COFAS (respect, dignity), QUEST (do no harm), NQS (dignity, rights)
	Joint attention	APECP, APFCCH, CLASS Toddler, ECERS-R, FCCERS-R, PCE
	Positive guidance of behaviours	APECP, APFCCH, CCAT-R, EC-CC-HOME, CCIS, CHELLO, CIS, CLASS Toddler, COFAS, ECERS-R, FCCERS-R, PCI, QUEST, SSEGA, TBRS, NQS
Hinderers	Emotional disengagement	CCAT-R, CIS, ORCE, TBRS
	Intrusiveness	CLASS Toddler, COFAS, ORCE
	Negative affect and atmosphere	CCAT-R, CCIS, CHELLO, CIS, COFAS, ECERS-R, FCCERS-R, ORCE, TBRS
	Negative guidance of behaviours	CIS, COFAS, ORCE, TBRS

Notes: The format and categories have been expanded and refined from the summaries given in [21].

Table A3. Five components of the ESOS and sub-constituents of each component.

Five Components of the ESOS	Sub-Constituents of Each Component
1. Employing Perceptual Acuteness	Perceiving negative emotional cues Perceiving positive emotional cues Perceiving social and relational cues Perceiving the emotional dynamics within a group of children
2. Employing Empathetic Discernment when Responding to a Child	Discerning and moving in harmony with the child's pace and ways of doing things Acting with sensibility in response to negative emotions & challenging behaviours
3. Acting with Moral Intent	Acting with genuine sincerity, empathy, care and compassion Judging each given situation with fairness Supporting autonomy and agency
4. Using Effective Verbal and Non-Verbal Communication when Relating to a Child	Joint attention Positive affect
5. Within a Quality Relationship, Sensibly Facilitating Children's Emerging Learning Opportunities	Augmenting teachable and learnable moments Creating emotionally safe environment for learning

This is a summarised version of the ESOS. For a copy of the full, five components of the ESOS with descriptors and examples, please contact the researcher/author. *The owner of the ESOS scale is the author of the article. The ESOS was developed by the author and two researchers who contributed to the development of the ESOS, and have requested to remain unnamed.*

The full scale for component 1 (of 5) of the ESOS. For a copy of all five components, please contact the researcher/author.

References

1. Fenech, M.; Harrison, L.; Murata, A. Parent users of high-quality long day care: Informed consumers of child care? *Australas. J. Early Child.* **2011**, *36*, 95–103. [CrossRef]
2. ACECQA. Guide to the National Quality Framework. 2018. Available online: https://www.acecqa.gov.au/sites/default/files/2019-06/Guide-to-the-NQF_0.pdf (accessed on 1 November 2022).
3. Biringen, Z.; Easterbrooks, M. Emotional availability: Concept, research, and window on developmental psychopathology. *Dev. Pscyhopathol.* **2012**, *24*, 1–8. [CrossRef] [PubMed]
4. Mikulincer, M.; Shaver, P.; Pereg, D. Attachment theory and affect regulation: The dynamics, development, and cognitive consequences of attachment-related strategies. *Motiv. Emot.* **2003**, *27*, 77–100. [CrossRef]
5. Bowlby, J. *Attachment and Loss: Attachment*, 2nd ed.; Basic Books: New York, NY, USA, 1982; Volume 1.
6. Waters, E. A secure base from which to explore close relationships. *Child Dev.* **2000**, *71*, 164–172. [CrossRef] [PubMed]
7. Shivers, E.M. Using the emotional availability scales along the child care continuum. Institute for child development research and social change. *Indigo Cult. Cent.* **2008**, *4*, 27–37, ISSN 1554-6144.
8. Colle, L.; Giudice, M. *Patterns of Attachment and Emotional Competence in Middle Childhood*; Blackwell Publishing: Oxford, UK, 2010.
9. Bretherton, I. Emotional availability: An attachment perspective. *Attach. Hum. Dev.* **2000**, *2*, 233–241. [CrossRef] [PubMed]
10. Lindon, J.; Rouse, L. *The Primary Caregiver Approach–Positive Relationships in the Early Years*; Teaching Solutions: Albert Park, Australia, 2014; ISBN 9781907241062.
11. Marsh, R.; Gerber, A.J.; Peterson, B.S. Neuroimaging studies of normal brain development and their relevance for understanding childhood neuropsychiatric disorders. *J. Am. Acad. Child Adolesc. Psychiatry* **2008**, *47*, 1233–1251. [CrossRef] [PubMed]
12. Mosier, W. Addressing the affective domain: What neuroscience says about social/emotional development in early childhood. In *Early Childhood and Neuroscience-Links to Development and Learning*, 1st ed.; Wasserman, L., Zambo, D., Eds.; Springer: Dordrecht, The Netherlands, 2013; pp. 77–104. ISBN 94-007-6671-8.
13. Australian Institute of Health and Welfare. *Social and Emotional Wellbeing: Development of a Children's Headline Indicator*; AIHW: Canberra, Australia, 2012; ISBN 978-1-74249-287-2.
14. Dolby, R. *The Circle of Security: Roadmap to Building Supportive Relationships*; Early Childhood Australia: Canberra, Australia, 2007; ISBN 1863230475.
15. Page, J. Do mothers want professional carers to love their babies? *J. Early Child. Res.* **2011**, *9*, 310–323. [CrossRef]
16. Page, J. Developing "Professional Love" in Early Childhood Settings. In *Lived Spaces of Infant-Toddler Education and Care: International Perspectives on Early Childhood Education and Development*; Harrison, L., Sumsion, J., Eds.; Springer: Dordrecht, The Netherlands, 2014; pp. 119–130. ISBN 978-9401788373.
17. Barrett, L.F. *How Emotions Are Made: The Secret Life of the Brain*; Houghton Mifflin Harcourt: New York, USA, 2017; ISBN 9781328915436.

18. Denham, S.; Wyatt, T.; Bassett, H.; Echeverria, D.; Know, S. Assessing social-emotional development in children from a longitudinal perspective. *J. Epidemiol. Community Health* **2009**, *63*, 37–52. [CrossRef] [PubMed]
19. Marvin, R.S.; Britner, P.A. Normative Development: The Ontogeny of Attachment. In *Handbook of Attachment: Theory, Research, and Clinical Applications*; Cassidy, J., Shaver, P.R., Eds.; Guildford: New York, NY, USA, 1999; pp. 44–67. ISBN 1572300876.
20. McNally, S.; Slutsky, R. Teacher-child relationships make all the difference: Constructing quality interactions in early childhood settings. *Early Child Dev. Care* **2017**, *188*, 508–523. [CrossRef]
21. Halle, T.; Vick Whittaker, J.E.; Anderson, R. *Quality in Early Childhood Care and Education Settings: A Compendium of Measures*, 2nd ed.; Office of Planning, Research and Evaluation, Administration for Children and Families, Department of Health and Human Services: Washington, DC, USA, 2010.
22. Halle, T.; Anderson, R.; Blasberg, A.; Chrisler, A.; Simkin, S. *Quality of Caregiver-Child Interaction for Infants and Toddlers (Q-CCIIT): A Review of the Literature*; OPRE 2011-25; Office of Planning, Research and Evaluation, Administration for Children and Families, Department of Health and Human Services: Washington, DC, USA, 2011.
23. Cohen, J. A coefficient of agreement for nominal scales. *Educ. Psychol. Meas.* **1960**, *20*, 37–46. [CrossRef]
24. Fenech, M.; Harrison, L.; Press, F.; Sumsion, J. Using metaphor to illuminate quality in early childhood education. *Australasian. J. Early Child.* **2020**, *45*, 197–210. [CrossRef]
25. Abbott-Shim, M.; Neel, J.; Sibley, A. *Assessment Profile for Early Childhood Programs: Research Technical Manual*; Quality Counts, Inc.: Tuscaloosa, AL, USA, 2001; ISBN 9781315045511.
26. Porter, T.; Rice, R.; Rivera, E. *Assessing Quality in Family, Friend and Neighbor Care: The Child Care Assessment Tool for Relatives*; Bank Street College of Education, Institute for a Child Care Continuum: New York, NY, USA, 2006.
27. Bradley, R.H.; Caldwell, B.M.; Corwyn, R.F. The child care HOME inventories: Assessing the quality of family child care homes. *Early Child. Res. Q.* **2003**, *18*, 294–309. [CrossRef]
28. Carl, B. Child Caregiver Interaction Scale (CCIS)–Revised Edition. 2010; *Unpublished document*.
29. Boller, K.; Sprachman, S. *The Child-Caregiver Observation System Instructor's Manual*; Mathematica Policy Research, Inc.: Princeton, NJ, USA, 1998.
30. Fiene, R. *Child Development Program Evaluation Scale and COFAS*; Children's Services Monitoring Consortium: Washington, DC, USA, 1984.
31. Neuman, S.; Dwyer, J.; Koh, S. *Child/Home Early Language & Literacy Observation Tool (CHELLO)*; Brookes Publishing: Baltimore, MD, USA, 2007. [CrossRef]
32. Arnett, J. Caregivers in day-care centers: Does training matter? *J. Appl. Dev. Psychol.* **1989**, *10*, 541–552. [CrossRef]
33. La Paro, K.M.; Hamre, B.K.; Pianta, R.C. *Classroom Assessment Scoring System: Toddler*; Brookes Publishing Co.: Baltimore, MD, USA, 2012. [CrossRef]
34. Harms, T.; Clifford, R.M.; Cryer, D. *Early Childhood Environment Rating Scale: Revised Edition*; Teachers College Press: New York, NY, USA, 1998; ISBN 0-8077-3751-8.
35. Harms, T.; Cryer, D.; Clifford, R.M. *Family Child Care Environment Rating Scale–Revised Edition*; Teachers College Press: New York, NY, USA, 2007; ISBN 0807747254.
36. NICHD. *Study of Early Child Care and Youth Development: Observational Record of the Caregiving Environment (ORCE)*; US Department of Health and Human Service-National Institute of Child Health and Human Development: Washington, DC, USA, 2004.
37. Frede, E.C.; Miller, A. Preschool Classroom Implementation Rating Instrument–High/Scope Manual. 1990; *Unpublished document*.
38. Goodson, B.D.; Layzer, J.I.; Layzer, C.J. *Quality of Early Childhood Care Settings: Caregiver Rating Scale (QUEST)*; Abt Associates Inc.: Cambridge, MA, USA, 2005.
39. Smith, S. *Pilot of a New Classroom Assessment Instrument: Supports for Social-Emotional Growth*; Child and Family Policy Centre, Steinhardt School of Education, Culture, and Human Development, New York University: New York, NY, USA, 2004; *Unpublished document*.
40. Landry, S.H.; Crawford, A.; Gunnewig, S.; Swank, P.R. *Teacher Behavior Rating Scale*; Center for Improving the Readiness of Children for Learning and Education, University of Texas Health Science Center: Houston, TX, USA, 2001; *Unpublished research instrument*.

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.