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UNDERSTANDING AND VALUING HIGH SENSITIVITY IN EDUCATIONAL CONTEXTS

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1. INTRODUCTION

High Sensitivity (Highly Sensitive Person - HSP), introduced by psychologist Elaine Aron in the 1990s, is an innate temperamental trait found in approximately 15–20% of the population (Aron, 1996). Rather than a pathology, it is a biologically grounded characteristic involving deeper cognitive processing of stimuli, heightened emotional reactivity, increased empathy, and sensitivity to subtleties in the environment (Aron & Aron, 1997). Individuals with high sensitivity exhibit unique neural activations in response to sensory and emotional stimuli, a fact supported by neuroimaging studies. For instance, fMRI research by Acevedo et al. (2014) revealed that highly sensitive individuals exhibit increased activity in the insula and mirror neuron systems—areas associated with empathy and social cognition—when processing facial expressions, especially those of loved ones.

Within educational contexts, highly sensitive children (HSC) often display both exceptional cognitive and emotional capacities and heightened vulnerability. If their trait is not properly understood or supported, these children can experience considerable stress, anxiety, or social withdrawal. However, when recognized and validated, their sensitivity may become a powerful resource for learning, creativity, and social harmony.

Aron (2002) identified the four core characteristics of HS using the acronym DOES: Depth of processing, Overstimulation, Emotional responsiveness/empathy, and Sensitivity to subtle stimuli. These factors help distinguish high sensitivity from other behavioral or neurological profiles. For example, while both HSC and children with sensory processing disorders (Ayres, 2012) may react strongly to environmental input, HS is not a dysfunction but an evolutionary trait involving deeper perceptual and emotional processing (Jagiellowicz et al., 2011). The distinction

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is essential to avoid misdiagnoses, such as confusing HS with ADHD or autism spectrum disorder (Pluess, 2015).

Educationally, HSC often benefit from environments that allow for reflection, emotional safety, and low sensory overload. However, many schools are structured for normative learners, leading to a mismatch between the child's needs and the learning environment. As emphasized in Catelli et al. (2023), overcrowded classrooms and overstimulating settings can impede the learning experience of HSC. Their research suggests that responsive classroom design—reducing visual clutter, controlling noise, and providing calm zones—can help these students thrive.

Moreover, the relational dimension is crucial. According to Stramaglia (2023), HSC are particularly attuned to the emotional tone of their surroundings. This makes teacher-student and peer relationships especially impactful. Teachers who are unaware of the trait may interpret HSC behavior as shyness, low motivation, or even defiance. This highlights the urgent need for targeted teacher training.

Beyond the classroom, family-school collaboration is essential. Research by Bowlby (1988) on attachment theory remains highly relevant: secure relationships with caregivers can buffer the stress of overstimulation and enhance HSC's capacity to self-regulate. According to Aron (2002), when parents recognize and validate their child's sensitivity, they help build resilience and foster positive identity development. Conversely, invalidation or neglect may lead to internalized distress or social withdrawal.

In recent years, the concept of differential susceptibility (Belsky & Pluess, 2009) has gained traction in developmental psychology, suggesting that HSC are more responsive to both positive and negative environments than less sensitive peers. This aligns with the metaphor of "orchid children"—those who may wilt under neglect but flourish when nurtured (Boyce & Ellis, 2005). Thus, sensitivity should not be seen as a vulnerability alone, but as a magnifier of context, capable of producing exceptional outcomes in supportive settings.

In conclusion, recognizing High Sensitivity as a temperamental trait with distinct neural and behavioral correlates calls for a paradigm shift in educational practices. Schools must adapt to the neurodiversity of learners, moving beyond a one-size-fits-all model. Investing in teacher training, inclusive classroom design, personalized pedagogies, and strong school-family partnerships is not merely supportive of HSC—it is foundational to building truly inclusive and emotionally intelligent learning environments.

2. METHODOLOGY

The qualitative research involved eight primary school teachers, selected through a non-probabilistic sampling strategy. The participants were contacted via email and telephone[3].

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Semi-structured interviews were designed and analyzed using MaxQDA software, which enabled systematic coding and the emergence of key themes through a Grounded Theory approach (Glaser & Strauss, 1967). After full transcription, the interviews were coded, and relevant segments grouped into emergent categories.

3. RESULTS

The analysis identified five main themes, as shown in the table and chart below. These reflect recurring patterns across the interviews:.

Table 1

3.1. *Frequencies of themes emerged from MaxQDA analysis*

Emergent Theme	Frequency
Lack of awareness of the trait	7
Overlap with other Special Educational Needs	5
Intuitive strategies	8
Importance of classroom context	6
Lack of training	8

3.2.

These five macro-themes summarize the main findings of the qualitative research, providing insight into how primary school teachers perceive and manage the trait of High Sensitivity (HS) in educational settings:

1. Lack of awareness. A prevalent theme was the limited knowledge among teachers regarding High Sensitivity as a distinct temperamental trait. Most participants reported that they had never heard of the concept before being introduced to it during the study. However, when presented with a description of highly sensitive children (HSC), many teachers retrospectively identified students in their classrooms who fit the profile. This highlights a gap in teacher education: while some behaviors of HSC may be familiar (such as emotional intensity or sensitivity to environmental stimuli), the underlying trait remains largely unrecognized. The absence of this conceptual framework may hinder a more accurate understanding and responsive pedagogical action.
2. Overlap with other Special Educational Needs (SEN). Another significant finding was the confusion between HS and other neurodevelopmental conditions such as ADHD, sensory processing disorders, or emotional and behavioral difficulties. Teachers often reported that behaviors now attributable to HS were previously interpreted as signs of attention deficits or social withdrawal. As noted by Ayres (2012), the risk of misdiagnosis is real, especially when HS is mistaken for a pathological condition rather than understood as a neurobiologically grounded personality trait. This misinterpretation can lead to stigmatization or the adoption of ineffective educational strategies, including unnecessary medicalization or exclusion from group activities.
3. Intuitive strategies. Despite the lack of formal knowledge, many teachers demonstrated an intuitive pedagogical sensitivity toward highly sensitive students. Several reported implementing adaptive strategies such as minimizing classroom noise, allowing for

moments of quiet or rest, offering alternative ways to complete assignments, and adjusting lighting and seating arrangements. These individualized responses were often based on empathetic observation rather than structured training, indicating that some level of responsiveness is possible even without deep theoretical grounding. However, the inconsistency and variability of these strategies also underscore the importance of more structured teacher support and guidance.

4. Importance of classroom context. Teachers emphasized the role of the relational and emotional climate of the classroom as central to the well-being of HSC. Many observed that these students were particularly responsive to peer dynamics, teacher attitudes, and subtle changes in tone or mood. When placed in a calm, respectful, and inclusive environment, HSC often displayed remarkable capacities for empathy, collaboration, and academic achievement. Conversely, when exposed to chaotic, overstimulating, or emotionally volatile settings, these students showed signs of distress or disengagement. The findings align with research by Aron (2002) and Stramaglia (2023), both of whom highlight the significance of emotionally attuned environments in supporting sensitive learners.
5. Insufficient training. All participants expressed a strong need for better preparation on the topic of High Sensitivity. Both in their initial university training and in ongoing professional development, the subject had never been addressed explicitly. Teachers voiced a desire for clearer guidelines, observational tools, and practical strategies tailored to the needs of HSC. They also expressed concerns about feeling unprepared to differentiate between HS and clinical conditions, and about lacking resources to create flexible and responsive classroom environments. This reveals an urgent demand for systematic inclusion of HS in teacher education curricula and continuing training frameworks.

4. DISCUSION

The data reveal a dual dynamic that is both encouraging and problematic. On the one hand, teachers demonstrated a strong pedagogical sensitivity and an intuitive capacity to recognize and support highly sensitive children (HSC), even in the absence of formal knowledge. This suggests that experience, empathy, and relational awareness can partially compensate for gaps in theoretical understanding. On the other hand, the lack of structured training and clear theoretical frameworks often resulted in inconsistent responses, misinterpretations, and, in some cases, inappropriate interventions.

A particularly troubling issue was the frequent confusion between High Sensitivity (HS) and other neurodevelopmental conditions such as Attention Deficit Hyperactivity Disorder (ADHD) or Sensory Processing Disorder (SPD). As documented by Aron and Aron (1997), HS—also referred to as Sensory Processing Sensitivity (SPS)—is a biologically based personality trait distinct from pathological conditions. Nonetheless, its overlapping symptoms with clinical disorders, such as

sensory overload, distractibility, and social withdrawal, often lead to incorrect assumptions and labeling. Pluess (2015) emphasizes that while HS may share surface-level characteristics with clinical diagnoses, it is fundamentally a non-pathological variant of temperament.

Despite this confusion, the spontaneous strategies adopted by many teachers showed notable alignment with the needs of HSC. These included creating quiet corners, allowing flexible routines, offering sensory breaks, and using soft tones of voice. These approaches mirror those suggested by recent neuroscientific findings, which highlight the unique neurobiological patterns of highly sensitive individuals, such as heightened amygdala activity in response to social stimuli (Acevedo et al., 2014).

However, relying solely on individual teacher intuition is neither scalable nor equitable. The findings underscore the urgent need for a systemic shift in educational policy and teacher training, particularly in light of the increasing attention to neurodiversity and inclusive education (Tomlinson, 2017; UNESCO, 2020). Addressing the needs of HSC requires coordinated, evidence-based interventions embedded in broader pedagogical practice.

Building on the evidence discussed, the following suggestions aim to inform and improve pedagogical approaches.

1. Initial and Ongoing Training. The integration of HS-related content into teacher education programs is essential. Both pre-service and in-service training should include modules on temperamental diversity, sensory processing sensitivity, and differentiated instruction. This aligns with Rogers' (1983) emphasis on the centrality of the teacher-student relationship and the need for empathetic, learner-centered pedagogies. More recent frameworks, such as those developed by the OECD (2018), advocate for educator training that prepares teachers to support diverse learners through inclusive, reflective practices.
2. Design of Inclusive Environments. Learning environments must be carefully designed to minimize sensory overload. Lighting, sound levels, color schemes, and seating arrangements should be adapted to accommodate sensory-sensitive learners. Aron (2002) notes that children with high sensitivity benefit from spaces that are predictable, calm, and emotionally safe. Scandinavian models of "calm classrooms," which emphasize natural light, soft materials, and modular spaces, have shown positive effects on concentration and emotional regulation (Barrett et al., 2015).
3. Educational Networks and Shared Responsibility. Supporting HSC effectively requires active collaboration between teachers, families, and the broader educational community. Establishing a "sensitivity pact" between parents, teachers, and peers can foster a culture of understanding, empathy, and co-responsibility. Zanetti and Mariani (2021) argue for a "pedagogy of kindness" that reframes sensitivity not as fragility, but as a strength in relational contexts. This approach aligns with socio-emotional learning models that promote cooperative learning, mindfulness, and emotional literacy (Durlak et al., 2011).

4. Personalized Teaching and Formative Assessment. Assessment frameworks must move beyond standardized testing to incorporate more nuanced, formative methods. For HSC, observation-based assessments and narrative reports may be more effective in capturing their learning trajectory. Pluess and Belsky (2013) have shown that sensitive children respond especially well to environments that recognize and reward effort, emotional expression, and personal growth. Teachers should be equipped with tools to recognize sensitivity as a developmental asset, not a barrier.
5. Supervision and Pedagogical Counseling. Regular spaces for dialogue and supervision must be offered to teachers, enabling them to reflect on complex cases and receive professional guidance. School counselors, educational psychologists, and pedagogical coordinators can play a pivotal role in helping teachers distinguish between temperamental traits and clinical disorders. As Boffo (2024) emphasizes, pedagogical professions must be empowered and legitimized as part of the broader educational ecology, fostering a culture of professional learning and reflective practice.

5. CONCLUSIONS

Sensitivity is both a challenge and a resource for inclusive education. The presence of highly sensitive children (HSC) in the classroom invites educators to reconsider traditional pedagogical models and to embrace a broader view of diversity—one that includes temperamental, sensory, and emotional dimensions. While sensitivity may at times manifest as vulnerability—through overstimulation, emotional overwhelm, or withdrawal—it also brings with it unique strengths, including deep empathy, creativity, heightened perception, and a strong ethical sense (Aron, 2002; Pluess, 2015).

Supporting these children, however, should not be left to chance, nor to the goodwill or intuition of individual teachers. Although many educators demonstrate an innate ability to recognize and accommodate the needs of HSC, as seen in the intuitive strategies uncovered in this study, such actions are not sufficient when they remain isolated or unstructured. What is needed is a systemic, informed approach that integrates research findings into educational policy, teacher training, classroom practices, and school-family relationships.

This requires a shift from reactive to proactive educational models. Teachers must be provided with the theoretical frameworks and practical tools necessary to identify HS not as a pathology, but as a legitimate variation of human functioning. This involves including HS in initial teacher education programs, as well as in continuous professional development opportunities (OECD, 2018). In parallel, inclusive classroom environments should be thoughtfully designed to reduce sensory overload and promote predictability and emotional safety (Barrett et al., 2015).

Moreover, pedagogical practices should embrace personalization, recognizing that HSC may require flexible pacing, varied forms of expression, and non-standardized assessments that capture emotional and cognitive depth. As the evidence on differential susceptibility suggests

(Belsky & Pluess, 2009), these children are more sensitive to both negative and positive influences, which makes the quality of the educational environment even more critical.

Lastly, a culture of collaboration must be fostered—among teachers, families, counselors, and pedagogical professionals—so that the responsibility of inclusion is distributed and shared. This includes regular spaces for dialogue, the creation of "sensitivity pacts," and the valorization of pedagogical professions, as emphasized by Boffo (2024).

In conclusion, by integrating training, inclusive design, personalized pedagogy, and cross-sector collaboration, we can build learning environments where all students—especially the most sensitive—can not only adapt, but truly thrive.

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