
How teachers support sensory differences in pupils with autism spectrum disorder: An investigation

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Research Context

Topic

- **Sensory behaviours** included in **diagnostic criteria** for autism spectrum disorder (ASD) the **first time in 2013** (APA, 2012)
- **Sensory differences are experienced by as much as 94%** of those with ASD (Greenspan and Wieder, 1998)
- Sensory differences **impact on the learning experience** of children (McDougal et al., 2020; Jones et al., 2020)

Problem

- **Little information** available on **supporting** sensory differences in classroom
- In Ireland, teacher **education and training opportunities are limited**

Research Context

Question: *How do teachers support sensory differences in pupils with ASD?*

Research Aims and Objectives

- To **investigate what teachers know** about sensory differences in children with Autism Spectrum Disorder
- To **identify if teachers have received training** on sensory differences in children with Autism Spectrum Disorder
- To **ascertain what strategies teachers use** to support sensory differences in children with Autism Spectrum Disorder

Methodology

Research Design

- **Qualitative design** using **case study** approach & **semi-structured interviews**
- Investigates **the how or the why** of a **particular phenomenon**
- Allowed for “subjective responses from persons regarding a particular situation or phenomenon they have experienced.” (McIntosh and Morse, 2015, p. 1)

Participants

Early Intervention teachers whose pupils have primary diagnosis of ASD



Minimum of 1 year teaching experience with autistic children



Total of 5 Participants

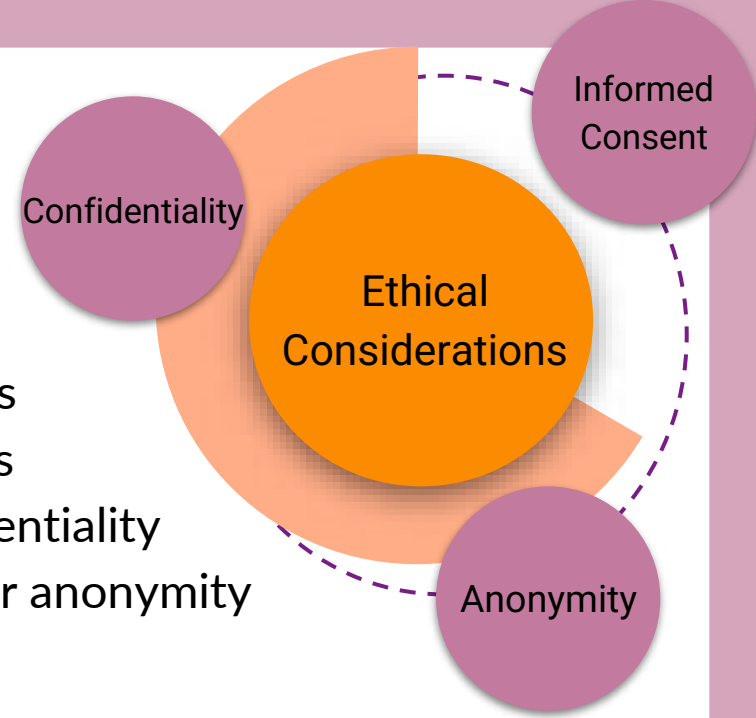
Methodology

Data collection and tools

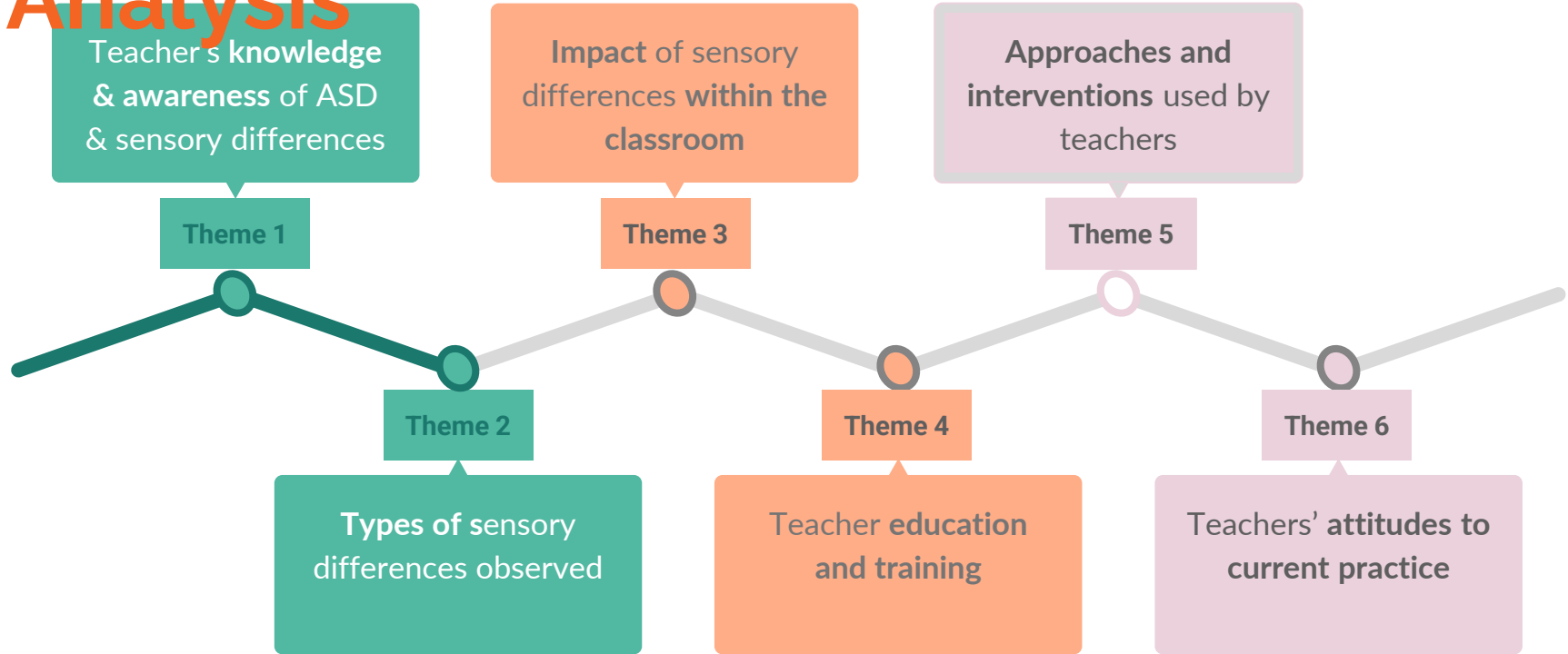
- **Informed consent** provided to all participants
- **Semi-structured interviews** via GoogleMeets
- **Audio recorded and safely stored** for confidentiality
- **Interviews transcribed** using pseudonyms for anonymity

Analysis

- Steps for **trustworthy thematic analysis** followed (Nowell et al., 2017)
- Series of **codes** were gathered
- Codes analysed and organised into **themes**



Thematic Analysis



Teacher's knowledge & awareness of ASD & sensory differences

- All teachers had awareness of the differences senses and the impact of sensory differences on their pupils

Table 1

The different external and internal senses

External Senses	Internal Senses
1. Touch/tactile	1. Proprioceptive
2. Taste	2. Vestibular
3. Smell	3. Introspective
4. Sound/auditory	
5. Sight/visual	

Types of sensory differences observed

Table 4

Examples of sensory differences described by participants according to type

Sensory difference according to type	Examples of sensory differences observed by participants
Touch	Wanting to touch water at inappropriate times, aversion to textures, mouthing of items, biting of items, sensory seeking e.g. touching objects in passing
Visual	Tracking shadows or light sources, flicking objects in front of eyes
Taste/Smell	Aversions to particular foods, avoidance of food items, presence of certain foods is upsetting
Auditory	Noise sensitivity, aversion to loud noises, aversion to specific noises/sounds
Vestibular	Difficulty sitting down, elopements from work table, inappropriately running around classroom, lack of engagement with music or dancing, self-stimulatory behaviours e.g. hand flapping
Proprioception	Fidgeting while anxious, throwing items, sensory seeking e.g. jumping from a height to seek a crash landing, seeking pressure by leaning against staff, exerting too much or too little force, full body tensing, tippy-toe walking
General	Difficulties with regulation

Approaches and interventions used by teachers

Table 6

Interventions used according to sensory type and intervention type

Sensory difference according to type	Modification of sensory environment	Task Modification	Opportunities for additional sensory input
Touch			Chewy tubes, z-vibe, waterplay
Visual		Visual schedules, visual aids	
Taste/Smell			
Auditory	Headphones programme, access to cosy corner, removal from loud environment		
Vestibular			Movement breaks, OT programmes
Proprioception			OT programmes, throwing programme, squeeze toys

Key

Finding 1

Teachers' awareness of sensory differences is there, but support for teachers is limited

Without opportunities for education and training, teachers are relying on their experience and the occasional support from other professionals

Finding 2

Sensory differences have various effects on daily school life, at an individual level, a whole class level, and at a staff level

- ❖ Communication, attention and participation
- ❖ Health and safety concerns
- ❖ Behavioural challenges
- ❖ Wellbeing

Finding 3

Interventions for sensory differences appear to work, but the system needs improvement

Combination of approaches used with positive impacts reported. However, methods of identifying and monitoring sensory differences need improvement

Limitations & Recommendations

Limitations

- **Case study approach:** specialised setting with access to behavioural team
- **Small sample size** (n=5)
- **Understanding** of sensory differences **may vary**
- These **impact on generalisability** of findings, however they do **match much of the literature** (Mills and Chapparo, 2018; Jones et al., 2020; McDougal et al., 2020)

Implications & Recommendations

- Implications on **how sensory differences are acknowledged and supported**
- **Need for education and training** opportunities for teachers
- Improvement in **collaboration between teachers and other professionals**



Thank you!

If you'd like to get in touch, there's a few ways you can find me:

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References

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