What is the impact of structured sensory integration on learners with autism?

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What is Sensory Integration?

Sensory processing is the response to a single sensation; sensory Integration is the way in which the brain processes and understands all of the sensory information which it receives at one time (Ayres, 2005).

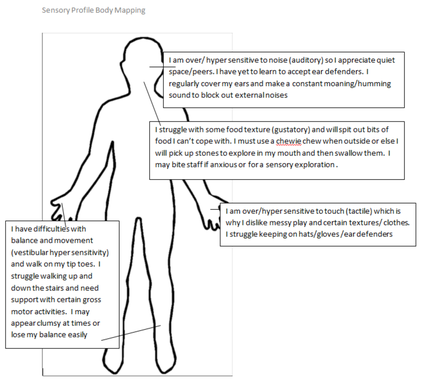
Sensory perceptual anomalies can occur in seven areas:

- Auditory (sound)
- Visual (sight)
- Gustatory (taste)
- Olfactory (smell)
- Tactile (touch)
- Vestibular (movement)
- Proprioception (bodily awareness)

A 'Structured Sensory Integration Programme' provides regular sensory activities which address the over or under sensitivities in each of the seven sensory areas.

Through accessing the sensory activities at regular intervals throughout the day, it is hoped that the individuals will develop a more thorough ability to integrate the senses, regulate their sensory behaviours and become ready to learn.

Why a Sensory Integration study?



Who was involved?

Barbara Telford (Deputy Head Teacher)

Rebecca Sutton (Head of Structured Learners Department)

Ashlea Whiteley (Sensory Integration Lead TA)

OT for Kids (Specialist Occupational Therapist Support)

Class Staff

Individual Pupils

Parents (consent for the study)

Process

Pre-intervention data was gathered regarding challenging behaviours:

- Learning Support Plans listed the specific behaviours which individual children displayed
- Star charts were completed, recording the number of incidents of challenging behaviour over the course of one week
- Observations were carried out on individual pupils

Sensory Profiles of each child highlighted their areas of over or under-sensitivity.

Individual Sensory Integration Programmes were created, with the support of a specialist Sensory Occupational Therapist.

Class staff delivered each individual Sensory Integration Programme over the course of 3 months (April – July).

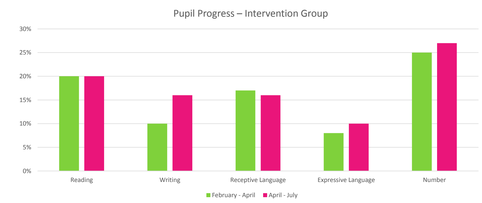
A separate group of five children did not access a Sensory Integration Programme, but were also monitored throughout the process.

Pupil Progress data was analysed for both groups over the course of the programme, and compared with the previous term's data.

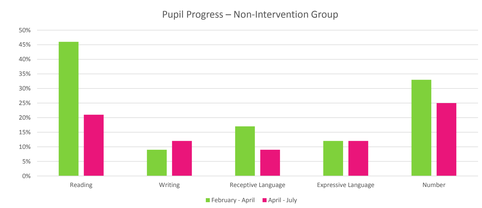
Star charts were completed at the end of the study, and the number of incidents were compared with the previous recordings.

Impact on Progress

Pupils who participated in the study either maintained or had increased progress in the majority of key learning areas.

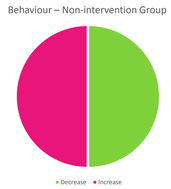


Pupils who did not have Sensory Integration either maintained or made less progress in the majority of key learning areas.



Impact on Behaviour

3 out of 4 of children who accessed the Sensory Integration Programme had a decrease in incidents of challenging behaviour; 1 pupil had an increase in behaviour..



2out of 4 children from the non-intervention group had a decrease in challenging behaviour, and 2 out of 4 children demonstrated an increase in behaviours.

Feedback

"xxx is working really well today…… really focussed"- Visiting specialist Teacher.

"We have discovered some motivating activities"- Teaching Assistant

"xx will now ask for support instead of just grabbing me."- Teaching Assistant

Findings

The results of the star charts highlighted the possibility that incidents of challenging behaviour increase during the Summer Term.

We need to have confidence in our own level of expertise and acknowledge our intimate knowledge of individual children.

Anomalies in the results suggest that the Sensory Integration Programme isn't appropriate for all children with autism.

Next Steps

- Roll the Sensory Integration Programme out to more children with Sensory Integration difficulties.
- Develop personalised programmes and expand sensory resources.
- Consideration of children's age should be taken into account in any further research.
- Ensure monitoring of pupils progress and behaviour during any interventions.
- Does the time of year impact on pupil behaviour?
- What is the optimum time to measure the impact of an intervention?