Applying Sensory Integration in School-based Occupational Therapy:
Enabling Participation in School Occupations

Sue Delport

& Andrea Hasselbusch

Learning Outcomes

After attending this session, delegates will be able to...

- Recognise factors shaping the delivery of SI-based intervention in schools

- Identify challenges and opportunities for using SI in school-based practice

- Apply basic SI principles within the context of the PEO model throughout the OT process

Outline

- **Moving into Schools**:
  Contextual Constraints & Opportunities
- Introduction to the PEO Model
- School-based OT **Assessment** using SI FoR
- School-based OT **Intervention** using SI FoR
  - Consultation
  - Direct Intervention
- School-based OT **Evaluation** using SI FoR
- Summary & Conclusion

Moving into Schools:
Contextual Constraints & Opportunities
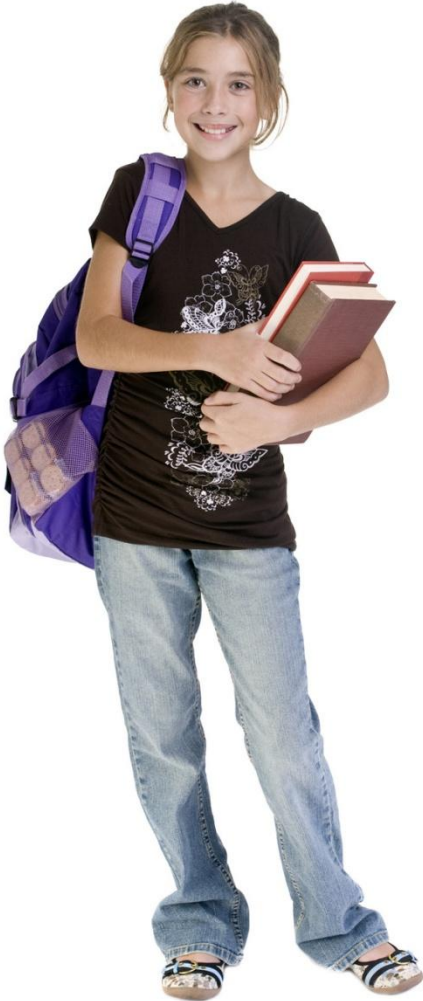
- Increasing referral rate of children with motor co-ordination and sensory modulation issues resulting in increasing waiting lists and restrictions on resources for intervention

- Inclusion principles encourage therapy service delivery embedded within mainstream schools

- Move towards providing occupation-centred (Swinth & Mailloux 2002) and educationally relevant occupational therapy services within a mainstream school context

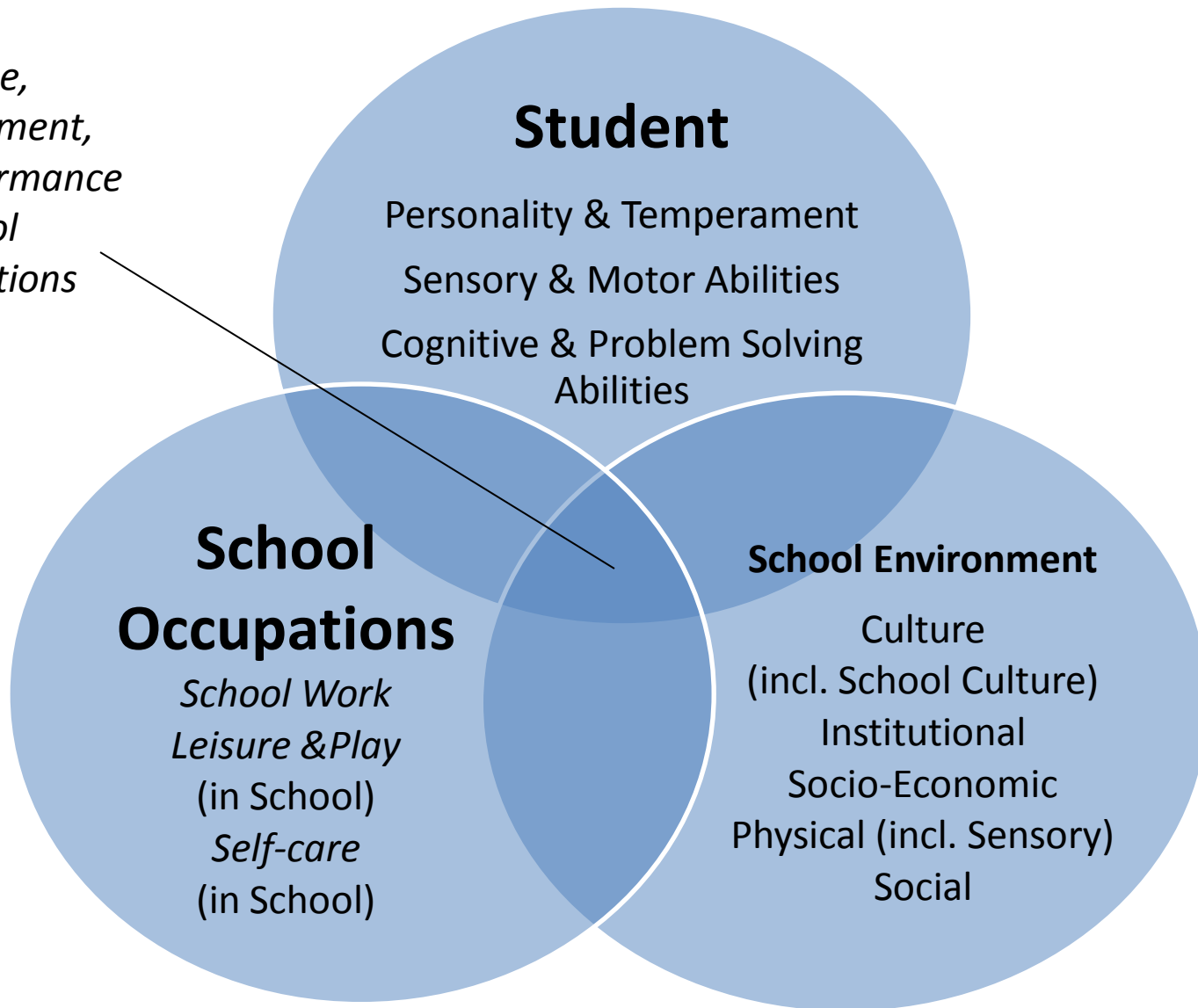# Impact of Sensory Processing on Occupational Performance in School

- Sensory processing issues have the potential to significantly impact children's engagement and performance in typical school occupations (Koenig & Rudney 2010)
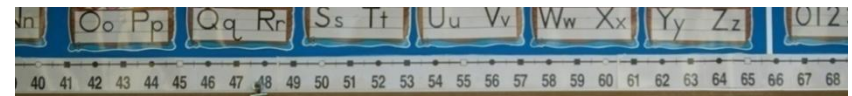
- Person – Child/ Young Person
- Environment -
- Occupation -
- Occupational Performance –

(Law et al)

Student –School Occupation(s) – School Environment(s)
Applying the PEO Model to the School Context

Presence, Engagement, & Performance in School Occupations

Student

Personality & Temperament

Sensory & Motor Abilities

Cognitive & Problem Solving Abilities

School Occupations

School Work

Leisure &Play

(in School)

Self-care

(in School)

School Environment

Culture

(incl. School Culture)

Institutional

Socio-Economic

Physical (incl. Sensory)

Social

School-based Occupational Therapy Assessment
Identifying Occupational Performance Issues in School Occupations

- Obtain occupational profile within school context & identification occupational performance issues in school occupations
  - Initial interviews & classroom observations
  - Adapted COPM focusing on school occupations
- Development of occupation-centred, functional & meaningful goals with parents and school staff (Parham et al 2011)
  - Following further assessment these could be developed into detailed Goal Attainment Scaling (GAS)
- **Clinical Reasoning**: Selecting appropriate frame of reference (FoR) for assessment & intervention

Quick Brainstorm

Applying SI within the Context of the PEO

Brainstorm sensory components of each of the elements of the PEO, <u>which may impact occupational performance</u>:

- The <u>student</u> with his/ her unique personality and temperament, sensory and motor abilities, cognitive and problem solving abilities.

- The <u>school environment</u>, including physical (incl. sensory), social, socio-economic, institutional and cultural environment

- <u>School occupations</u> (school work, as well as self-care, leisure and play) - Choose specific activities and analyse sensory components of this activity.

School-based OT Assessment applying SI: **Non-Standardised Assessment Tools**

- **Skilled Classroom Observations** based on the PEO with a sensory focus

- **Interview** based on the PEO with a sensory focus
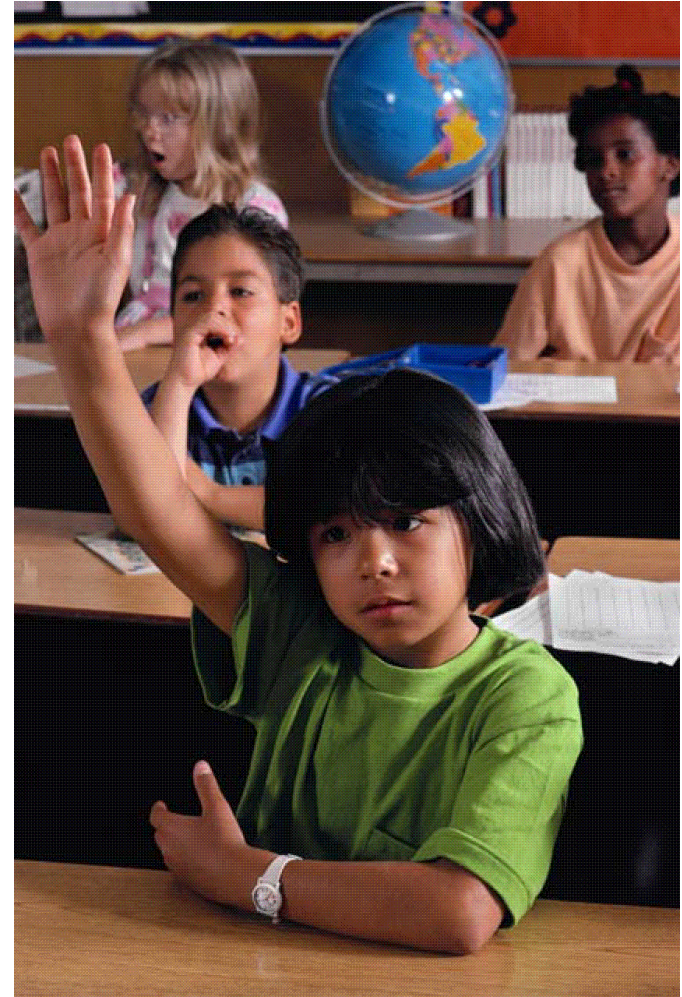
Small Group Work: Observations based on the PEO

- **Observations** - What elements relevant to sensory processing could you observe in the classroom and wider school environment ?

- **Group A**: Child

- **Group B**: School Environment

- **Group C**: School Occupations/ Activities

Small Group Work:
Interview based on the PEO

- **Interview** - What questions could you ask the school staff to gather information on sensory factors impacting on occupational performance?

- **Group A**: Child

- **Group B**: School Environment

- **Group C**: School Occupations/ Activities

School-based OT Assessment Applying SI: **Structured & Standardised Assessment Tools**

- **Contextualised SI Assessment** focusing on sensory processing abilities during typical school activities within the school context
  - Sensory Processing Measure (SPM) (Miller Kuhanek , Henry & Glennnon 2007)
  - Sensory Profile School Companion (Dunn 2006)

- **Specialised SI Assessment**, e.g. SIPT, clinical observations

School-based OT Intervention
Applying SI in Consultation

- **Reframing** – "*enabling others to understand a student's behavior in a different way or to view behaviors from a new perspective*" (Bundy 2002, p. 311)

- Provision of Strategies (Changing **P**erson or **E**nvironment) – e.g. movement breaks, ear muffs

- Environmental Modification (Changing **E**nvironment) – e.g. classroom seating (ball), positioning in classroom

- Task Adaptations (Changing **O**ccupation) – e.g. Writing utensils, clothing with velcro

School-based OT Intervention
Applying SI in Direct Intervention: Structural Elements

Structural Elements - directly observable, characteristics of intervention programme and environment

Preparation for Intervention:
Physical Elements & Room set up

- Space for movement
- Suspension possibilities (3 min.)
- Rotational device
- Variety of specific equipment
- Quiet Space
- Flexibility to change environment
- Safe environment, e.g. mats

Share your individual experiences [challenges & solutions] of how you have utilised and adapted the school environment to create an appropriate SI treatment space?

School-based OT Intervention
Applying SI in Direct Intervention: Process Elements

Process Elements - dynamic qualities of intervention

1. Ensure physical safety
2. Present sensory opportunities
3. Facilitate appropriate alertness
4. Challenges postural, ocular, oral or bilateral motor control
5. Challenges praxis & organisation of behaviour
6. Collaborates in activity choice
7. Presents just-right challenge
8. Ensures success
9. Supports play
10. Therapeutic alliance

Share your individual experiences [challenges & solutions] of adhering to these process elements within a school environment?

SI Toolbox for School-based OT

- What would be part of your ideal "SI tool box" as an itinerant OT visiting schools?

- Consider...
  - Portability
  - Flexible use

Applying SI to School-based OT Evaluation

- **What to evaluate? Outcomes of SI?**
(Parham & Mailloux 2010)
  - Participation & Performance in School Occupations; Enhancement of School Life
  - Frequency & complexity of adaptive response, e.g. behaviour in classroom
  - Fine motor skills, such as writing and cutting
  - Gross motor skills, such as catching and kicking a ball in PE
  - Self-confidence & self-esteem
- **How to evaluate?**
  - Goal Attainment Scaling (GAS)
  - COPM (adapted School version)
  - Satisfaction Questionnaires (school staff & parents)
  - Self-esteem Scale (e.g. Piers & Harris II)
  - Vineland Adaptive Behaviour Scale II

School-based OT Evaluation: *Case Example*

COPM   **GAS**

- School Work:

- Self-care:

- Leisure:

Conclusion & Summary

- SI intervention school-based OT is relevant
- Current practice reality creates challenging conditions which requires a high level of creativity and proficiency from practitioners intending to utilise sensory integrative frame of reference effectively in a school context.

Contact Details

Sue Delport BScHons (OT),
  MSc (OT)

Lecturer Cardiff University

School of Healthcare Studies

Heath Park

Cardiff

CF14 4XN

United Kingdom

E-mail:
 delportsm@cf.ac.uk

Andrea Hasselbusch

Bournemouth University

School of Health & Social Care

Royal London House, R601

Christchurch Road

Bournemouth

Dorset, BH1 3LT

United Kingdom

E-mail:

ahasselbusch@bournemouth.ac.uk