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 )
Applying the PEO Model to the School Context

Student – School Occupation(s) – School Environment(s)

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

Presence, Engagement, & Performance in School Occupations
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, which may impact occupational performance:

• The student with his/her unique personality and temperament, sensory and motor abilities, cognitive and problem solving abilities.

• The school environment, including physical (incl. sensory), social, socio-economic, institutional and cultural environment

• School occupations (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 Kuhaneck, 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 **Person** or **Environment**) – e.g. movement breaks, ear muffs

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

- **Task Adaptations** (Changing **Occupation**) – 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
- School Work:
- Self-care:
- Leisure:

GAS
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