Movement Environment Rating Scale (MOVERS) Mini-Workshop

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Quality of ECEC settings

➢ What does research tell us about the impact of quality on child learning outcomes?
EPPSE Study (1997-2014)

➢ To examine the impact of different types of pre, primary and secondary schooling on children’s academic and social/behavioural development;

➢ To examine the structural and process characteristics of more effective pre, primary and secondary schools;

➢ To examine the interaction between child, family and home learning characteristics, quality and child outcomes;

➢ To examine the impact of students’ views of themselves and of their school’s process on academic and social/behavioural outcomes.
Effects upon Age 11; literacy and numeracy

Effect size in standard deviation units

- Literacy
- Numeracy

- Family income
- Mother’s Education
- Father’s Education
- Socio-economic status
- Home learning environment
- High-quality pre-school
- Primary school
Self-Regulation and Pro-Social Behaviour as a Function of Pre-School Quality (Age 11)
Effect sizes for 16 year olds

- **Effect size**
- **Literacy**
- **Numeracy**

- Family income
- Father's education
- Father's education
- Socio-economic status
- Home Learning Environment
- High-quality preschool
- Primary school
- Secondary school quality
Domains of child development

- Social
- Language
- Emotional
- Cognitive
- Physical
Physical Domain

CHILD DEVELOPMENT

36 weeks gestation  Newborn  3 months  6 months  2 years  4 years  6 years

Synapse formation  Synapse pruning
Physical Domain
CHILD DEVELOPMENT

Preschool years – sensory and motor development
Physical Domain

CHILD DEVELOPMENT - PROPRIOCEPTION

➢ Supports body posture and movement
➢ Tell us where our bodies are in space
➢ Where body parts in relation to each other
## Physical Domain

### CHILD DEVELOPMENT - PROPRIOCEPTION

<table>
<thead>
<tr>
<th>Upper Body &amp; Lower Body</th>
<th>Upper Body</th>
</tr>
</thead>
<tbody>
<tr>
<td>Put your left hand on your right toe.</td>
<td>Clap your hands twice.</td>
</tr>
<tr>
<td>Put your left hand on your left toe.</td>
<td>Put your elbows together.</td>
</tr>
<tr>
<td>Touch your heels.</td>
<td>Touch your eyes.</td>
</tr>
<tr>
<td>Put your feet together.</td>
<td>Touch one elbow.</td>
</tr>
<tr>
<td>Put your knees together.</td>
<td>Touch two elbows.</td>
</tr>
<tr>
<td>Touch your right knee with your left hand.</td>
<td>Draw a square in the air.</td>
</tr>
<tr>
<td>Touch your left knee with your right hand.</td>
<td>Clap one time.</td>
</tr>
<tr>
<td>Touch one knee and one foot.</td>
<td>Clasp your hands behind your neck.</td>
</tr>
<tr>
<td>Put your right hand on your left knee.</td>
<td>Touch one shoulder.</td>
</tr>
<tr>
<td>Put your left hand on your right knee.</td>
<td>Place your palms together.</td>
</tr>
<tr>
<td>Put your right hand on your left hip.</td>
<td>Put your hands on your head.</td>
</tr>
<tr>
<td>Put your left hand on your right hip.</td>
<td>Put your hands on your head.</td>
</tr>
<tr>
<td>Put your feet apart.</td>
<td>Touch your nose.</td>
</tr>
<tr>
<td>Touch your toes with your arms crossed.</td>
<td>Touch your nose with one hand, your knee with the other.</td>
</tr>
<tr>
<td>Put both hands on hips.</td>
<td>Cross your arms in front of your chest.</td>
</tr>
<tr>
<td>Put your head to the floor.</td>
<td>Put your nose to the window.</td>
</tr>
</tbody>
</table>
Physical Domain

CHILD DEVELOPMENT - PROPRIOCEPTION

Archer and Siraj, 2015)
Physical Domain

CHILD DEVELOPMENT

Movement
Movement Environment Rating Scale (MOVERS) for 2–6-year-olds provision

Improving physical development through movement and physical activity

Carol Archer and Iram Siraj

Foreword by Anthony Okely
MOVERS
ITEM 2

Providing resources including portable and or fixed equipment

- Resources indoors and outdoors
- Access to portable and fixed equipment
- Organization of resources to engage children
- Creative ways to use equipment
5.4 Staff draw attention to creative ways in which resources and materials can be used and model their use and/or support children’s explorations of how they can be utilised for physically activity play.
7.1 Staff provide a range of portable and fixed resources for gross motor activities, which encourage children to be physically active alone, or with their peers or adults.
7.3 Staff use resources for movement-play activities, which challenge and enhance all children’s skills and physical development
MOVERS
ITEM 2 – TAKE HOME MESSAGES

➢ Quality not quantity
➢ Indoor and outdoor environments are important
➢ Both portable and fixed equipment are needed
➢ The role of the educator in providing opportunities is important

1. What resources are available in your setting?
2. How could the resources be changed or modified?
MOVERS
ITEM 3

Gross motor skills

- Children **engage** in gross motor activities indoors and outdoors
- **Integration** of gross motor activities into other curriculum areas
- Staff **plan** for gross motor activities
MOVERS
ITEM 3 – GROSS MOTOR SKILLS

Ball skills
- Catch, kick, throw, strike, roll, bounce

Locomotor Skills
- Run, jump, leap, gallop, side gallop, hop

Stability skills
- Balance

Gallahue and Ozmun, 2002
MOVERS
ITEM 3 – GROSS MOTOR SKILLS

Why are they important?

- Self esteem
- Weight status
- Levels of physical activity
- Cardio respiratory fitness
- Cognition and self-regulation
MOVERS
ITEM 3 – GROSS MOTOR SKILLS

Hardy et al., 2010  
** Differences between boys and girls and ages
5.2 Staff integrate gross motor activities into other curriculum areas

The dragonfly can move forwards, backwards, sideways and hover. While doing these movements, dragonflies rotate their four wings independent of each other.
MOVERS

Subscale 1: Curriculum environment and resources for physical development
Subscale 2: Pedagogy for physical development
Subscale 3: Supporting physical activity and critical thinking
Subscale 4: Parents/carers and staff
THE MOVERS: Subscales and Items

**Subscale 1: Curriculum, environment and resources for physical development**
- Item 1: Arranging environmental space to promote physical activity
- Item 2: Providing resources including portable and/or fixed equipment
- Item 3: Gross motor skills
- Item 4: Body movement to support fine motor skills

**Subscale 2: Pedagogy for physical development**
- Item 5: Staff engaging in movement with children indoors and outdoors
- Item 6: Observation and assessment of children’s physical development
- Item 7: Planning for physical development indoors and outdoors

**Subscale 3: Supporting physical activity and critical thinking**
- Item 8: Supporting and extending children’s movement vocabulary
- Item 9: Encouraging shared sustained thinking by communicating and interacting through physical activity
- Item 10: Supporting children’s curiosity and problem solving

**Subscale 4: Parents/carers and staff**
- Item 11: Staff inform families about children’s physical development and the benefits to their learning, development and health
Improving physical development through movement and physical activity & the MOVERS

Physical development is a key component of the curriculum internationally

- Learning for the young child is grounded in the body, particularly in the first 6 to 8 years of life when the growth of the brain is dependent upon children working hard at stimulating the nervous system (Lamont, 2007).

- There is increasing concern about whether children are physically ready for school in terms of their balance, posture, and coordination. These are the physical foundations for learning that need to be secure in order to ensure young children are equipped to cope with the demands of the more formal classroom; they include the ability to sit still and concentrate, coordinate their hand and eye movements when writing and eye tracking skills needed for reading and fine motor skills (Goddard Blythe, 2005).
MOVERS
SCORING

➢ Each subscales is divided into a number of items
➢ Each item is scored on a scale of 1-7
➢ Each subscale is given a final score

Scale of measurement:

<table>
<thead>
<tr>
<th>Inadequate</th>
<th>Minimal</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>7</td>
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MOVERS
SCORING

➢ 1= don’t have it (few or no resources or activities)
➢ 3=have it (limited but appropriate resources, basic activities provided, but pedagogy seems ‘accidental’ or lacks coherence)
➢ 5=have it and use it (a wider range of materials plus active support by staff to support learning)
➢ 7=have it, use it and extend it (diverse range of materials to suit different needs/interests plus encouragement to apply knowledge to other situations and problems. At this level, both adults and children contribute to construction of shared meaning, knowledge and skills)
MOVERS
SCORING

➢ 1 = if any indicator under 1 is scored YES
➢ 2 = all indicators under 1 are scored NO and at least half of the indicators under 3 are scored YES
➢ 3= all indicators under 1 are scored NO and all indicators under 3 are scored YES
➢ 4= all indicators under 1 are scored NO and all indicators under 3 are scored YES and at least half of the indicators under 5 are scored YES
➢ 5= all indicators under 1 are scored NO and all indicators under 3 are scored YES and all indicators under 5 are scored YES
MOVERS
SCORING

➢ 6 = all indicators under 1 are scored NO and all indicators under 3 are scored YES and all indicators under 5 are scored YES and least half of the indicators under 7 are scored YES

➢ 7= all indicators under 1 are scored NO and all indicators under 3 are scored YES and all indicators under 5 are scored YES and all indicators under 7 are scored YES,

➢ NA (not applicable) can only be given for indicators which are labelled ‘NA”. Items marked NA are not counted when determining the rating for the item.
MOVERS
SCORING

➢ *Average* score for the sub-scale - add up all of the ratings for the individual items and then divide by the number of items scored.

➢ The **total** mean score for the MOVERS is the sum of all of the item ratings divided by the total number of items scored.
MOVERS
ITEMS 6 and 7

➢ What observations can you make about the scale?

➢ What happens in terms of the child?

➢ What happens in terms of the educator?
Subscale 1 Item 1 Arranging environmental space to promote physical activity (Pink)
Subscale 2 Item 5 Staff engaging in movement with children indoors and outdoors (Yellow)
Subscale 3 Item 8 Supporting and extending children’s movement vocabulary (Green or Purple)
Subscale 4 Item 11 Staff inform families about children’s physical development and the benefits to learning, development and health **(Light blue)**
Domains of child development

- Physical
- Social
- Language
- Emotional
- Cognitive