

Making Spatial Play Visible Using Open-Pose

Video	Measurement	Play
<p>mostly static</p> <p>ground level view</p> <p>covers middle playground</p> <p>players go in&out of shot</p> <p>3-4 children at a time</p> <p>individual microphone speech</p>	<p>player trajectory / positioning</p> <p>speed</p> <p>distance/proximity between players</p> <p>distance/proximity from objects</p> <p>stop/start</p> <p>movement amount</p> <p>movement consistency <i>(average speed, movement amount across time, movement around play objects, covered playground area)</i></p> <p>amount / direction of speech</p> <p>orientation of the body</p>	<p>Conditions:</p> <p>outdoor & indoor</p> <p>with technology / without</p> <p>different types of games / different tools</p> <p>Aspects:</p> <p>joint attention</p> <p>collaboration</p> <p>engagement with game / transition between different games</p> <p>engagement with toys made available</p> <p>play type (behaviour)</p> <p>game type (nature of game)</p> <p>groupings (who plays with who)</p> <p>social roles</p> <p>social competence</p> <p>play preferences</p> <p>use of playground space (scattered play)</p> <p>physical activity</p> <p>stages of the game</p> <p>type of movement - individual, in relation to other players, as a group</p> <p>competitive / cooperative play</p>

Video observations:

Social 'roles' - more / less dominant players - leaders / participants

attention / engagement with each other (more or less with different players)

attention / engagement with different games (switching between games)

cooperative / competitive play

Questions:

What can we predict / correlate with?

- engagement (positive / negative)

- attention (obvious vigilance towards other players / no vigilance towards other player)

- social roles

- overall group dynamic

What can we measure with the given data?

- movement (static / active / amount / quality)

- body posture (upper body / lower body - moving/stopped; up/down)

- synchronisation between players