Cognitive Strategy Use and Social Competence
An Exploratory Factor Analysis

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Social Competence
Social Competence

- **Social competence** at school:  
  *How well a child can establish, develop and maintain constructive social relationships*... *(Wight & Chapparo, 2008)*

- **Occupational performance** at school

- **Growing number of children** experiencing difficulty with social interaction at school
Social cognition:
How well a child can attend, encode, interpret, plan and execute appropriate social behaviours in a given social interaction...
Research into Social Competence

- Focus on **cognitive strategy use**
- Meta-analysis: Application of step-by-step systematic instruction, active forms of learning and executive functioning to promote **generalisation** of social skills (Durlak et al., 2011).
- Teaching children **thinking** strategies to apply to a range of social situations
The Perceive, Recall, Plan and Perform (PRPP) System of Task Analysis and Intervention

PRPP Intervention
Cognitive strategies targeted

The PRPP System of Task Analysis
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AUSTRALIA
www.occupationalperformance.com
Research Questions:

What patterns of cognitive strategy use do children who experience difficulties with social competence demonstrate according to teacher perceptions?

What patterns of cognitive strategy use do children who experience difficulties with social competence demonstrate according to parent perceptions?
### Study Design:

<table>
<thead>
<tr>
<th>Question 1: Parent Perceptions</th>
<th>Question 2: Teacher Perceptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Data for a sample of <strong>306 children</strong></td>
<td>• Data for a sample of <strong>303 children</strong></td>
</tr>
<tr>
<td>• First four years of formal schooling</td>
<td>• First four years of formal schooling</td>
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<tr>
<td>• Difficulties with <strong>social participation</strong></td>
<td>• Difficulties with <strong>social participation</strong></td>
</tr>
<tr>
<td>• PRPP@HOME (Primary) Parent Questionnaire</td>
<td>• PRPP@SCHOOL (Primary) Teacher Questionnaire</td>
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</tbody>
</table>
The Perceive, Recall, Plan and Perform (PRPP) Questionnaire:

Examples of Questions from Perceive Quadrant: 3 2 1

Is the child able to *ignore distractions*?

Switch *attention* from one thing to the next?

Monitor what is going on in the classroom and is responsive?

Examples of Questions from Recall Quadrant: 3 2 1

Does the child know *when things happen* or when to do things?

Know *where things happen* and where to be?

Recall the steps for task performance?
Study Design:

Exploratory Factor Analysis:

1. **Suitability** of the data set: *Sample size, Bartlett’s test of Sphericity and the Keiser-Meyer-Olkin (KMO) measure of sampling adequacy*

2. **Principal components analysis:** *Kaiser’s eigenvalue rule and Catell’s scree test*

3. **Varimax orthogonal rotation**
Results - Parent Perceptions:

Factor One:
Ability to organise thinking, maintain attention, and process external sensory details.

Factor Two:
Higher level thinking for internal evaluation of behavioural responses.

Factor Three:
Dual attention during social interaction with checking of external sensory inputs.

Factor Four:
Perform and adjust behaviour to suit the goal of a social interaction.

Organises
Calibrates
Maintains
Chooses
Sequences
Discriminates
Judges
Analyses
Identifies obstacles
Questions
Notices
Monitors
Modulates
Calibrates
Stops
Continues
Adjusts

PERCEIVE
RECALL
PERFORM
PLAN
Results - Teacher Perceptions:

**Factor One:** Planning processes that involve mapping and programming of thinking to contextualise to time.

**Factor Two:** Goal directed behaviour and recall processes to mediate social responses.

**Factor Three:** Knowing how to apply strategies to match the immediate social context.
- Knows goal
- Categorises
- Contextualises to time and place
- Matches actions
- Recalls steps
- Notices
- Monitors
- Uses objects

**Factor Four:** Strategies to coordinate and adjust motor actions during social interactions.
- Coordinates
  - Stops
  - Flows
- Continues
- Adjusts
- Uses body

PERCEIVE

PERFORM

PLAN

RECALL
Discussion

- **Cognitive strategies** as a basis for developing social skills
- Parent perceptions indicate inefficient use of **Perceive** and **Planning** processes
- Teacher perceptions indicate the importance of **Planning** and **Recall** processes
- **Higher level** thinking
- The **PRPP System of Task Analysis**

**Limitations:** Data collected from one area in Greater Western Sydney; limited research into associated social skills.
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References:


