

**Social Problem Solving Scale**  
*Grade 3 / Year 4*  
Fast Track Project Technical Report  
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**Citation**

*Instrument*

Conduct Problems Prevention Research Group (CPPRG). (1991). *Social Problem Solving Scale*. Available from the Fast Track Project Web site, <http://www.fasttrackproject.org>

*Report*

Sandoval. J. M. (2011). *Social Problem Solving Scale, Grade 3 /Year 4* (Fast Track Project Technical Report). Available from the Fast Track Project Web site, <http://www.fasttrackproject.org>

**Data Sources**

*Unscored:* C4B

*Scored:* SPS4

**I. Scale Description**

The Social Problem Solving Scale assesses the way a child resolves problems encountered in typical social settings with other children. The Social Problem Solving Scale contains eight drawings of social situations with children. An interviewer elicits information from the child that expresses how the child would interact with the children in each picture. The interviewer records a code for the child's response. The code represents one of six response categories.

The drawings depict two types of social situations. Four of the situations show a solitary child who would like to join in an activity with other children; for example, playing on a jungle gym, or joining in a game of tag. In these situations the child's task is to *solicit social involvement*. The other four drawings show a child who is being teased or frustrated by another child; for example, the other child will not share a swing, or the other child pushes a child out of a line. In these situations the respondent's task is to *resolve a social conflict*. The drawings use stick figures so that race and gender are neutral.

The interviewer reads a script describing each social situation, and asks the respondent to take the role of one of the children in the drawing. The interviewer prompts the child for three responses to each situation. Following is an example of an interview.

## Sample Interview for a Social Problem Solving Picture

Drawing: Several children playing on a jungle gym. Another child stands apart from those playing on the gym, looking at those playing.

Interviewer: "Pretend that this is YOU..." [Interviewer points to solitary child]  
"...and that this is COLLEEN/JOSH" [interviewer points to one of the children on the jungle gym]. "COLLEEN/JOSH and some other kids are playing on the jungle gym at school. YOU would like to play with COLLEEN/JOSH and the other kids, but they haven't asked you. What could YOU say or do to get to play with COLLEEN/JOSH and the other kids?"

After the child answers, the interviewer prompts for two more responses:

Prompt 1:

"What's another thing you could do or say so that YOU could get to play with COLLEEN/JOSH and the other kids?"

Prompt 2:

"Can you think of anything else that YOU could do or say so that YOU could get to play with COLLEEN/JOSH and the other kids?"

Interviewers probe for more information in cases where the child says he/she would seek out an adult. Responses that involve an adult must be clarified to determine how to categorize them. Similarly, interviewers probe for clarification when the response is vague; for example: "I'd be nice," or "I'd be mad".

### Incomplete and vague responses

If the child gives fewer than three answers, the interviewer repeats Prompt 2. If the child again fails to give a valid answer, the interviewer enters a code indicating that the child did not provide further novel responses. If the child repeats a previous answer verbatim, the interviewer does not record the verbatim response and repeats Prompt 1. If the child again repeats a previous response, the interviewer proceeds to the next picture in the series without recording any of the repeated responses.

A similar situation occurs when the child gives the same response worded in different ways. For example, the child may say "I'd be nice," followed by "I'd be really nice" as the next response. After two such answers, the interviewer attempts to elicit a different response, using a comment such as: "Well, being nice is one thing you could do, what's something *different* you could say or do?" If the child gives a different response, the interviewer records it. If the child again gives the same response, the interviewer codes the multiple, repeated responses as one response, and proceeds to the next picture in the series.

### Scoring

Scoring for the Social Problem Solving Scale is conducted as follows:

1. The interviewer assigns the code for a response category to each verbal response for each picture. The categories and codes are: Aggressive (0), Competent (1), Authority/Punish (2), Authority/Intervene (3), Passive/Inept (4), Irrelevant/Other (5). (Detailed descriptions of each category are in the following table.) If a response fits more than one category, it is assigned to the category with the lowest code number.

### Social Problem Solving Scale Response Categories

Code	Category	Description
0	Aggressive	All forms of physical or verbal aggression, also threats of any kind.
1	Competent	All responses that suggest a direct, socially appropriate way of handling the situation. Some forms that competent responses can take are: asking, making deals, bribing, assertively telling, sharing, trading, and joining in.
2	Authority/Punish	Appeals to some authority figure to punish the provocateur in some way. Authority figures include parents, teachers, other school personnel, and older relatives.
3	Authority/Intervene	Appeals to authority figures to intervene on the child's behalf, rather than punishing the provocateur.
4	Passive/Inept	Passive or nonassertive responses to the depicted situation.
5	Irrelevant/Other	Nonsense responses and other answers that do not fit into the other categories
6	Unable to Provide Further Responses	The child has been issued both prompts and cannot come up with a novel response.

2. The total number of valid responses for each picture is calculated. A valid response is a response that can be assigned to a category. Inept or irrelevant responses are valid. Repetitive responses are an example of invalid responses.
3. The percent of responses in each category for each picture is calculated by dividing the number of responses in each category by the total number of valid responses. This calculation yields *Picture response percentages*.
4. The mean of each response category percentage over the eight pictures is calculated to yield *Mean-percentages across pictures*.

### II. Report Sample

This report contains data collected on Cohort 1, Year 4. The data include a high-risk Control sample (n=155) and a Normative sample (n = 308, n = 463 with overlap). Of the 463 subjects, 56 are missing coded responses for all pictures, including 39 from the Normative group (7 from Durham, 10 from Washington, 9 from Pennsylvania, and 13 from Nashville), and 17 from the Control group (5 from Durham, 1 from Nashville, 3 from Pennsylvania, and 8 from Washington), with overlap between the Normative and Control groups. None of these measures was used in the analyses.

### III. Scaling

For each response category, the alpha coefficients for *picture response percentages* are in the table below.

	Normative Sample	Control Sample
<b>Aggressive</b>	0.75	0.65
<b>Competent</b>	0.72	0.63
<b>Authority- Punish</b>	0.42	0.41
<b>Authority/Intervene</b>	0.50	0.54
<b>Passive/Inept</b>	0.56	0.56
<b>Irrelevant/Other</b>	0.08	0.20

#### IV. Differences Between Groups

T-tests of means of the *mean percentages across pictures* between the Normative and Control samples yielded the following results:

	Normative Sample		Control Sample		DF	t Value	Pr >  t
	Mean	SD	Mean	SD			
<b>Aggressive</b>	0.09	0.10	0.10	0.10	407	.98	.32
<b>Competent</b>	0.71	0.16	0.69	0.14	407	-.78	.43
<b>Authority/Punish</b>	0.02	0.04	0.03	0.05	407	3.10	.002
<b>Authority/Intervene</b>	0.07	0.06	0.08	0.07	407	.87	0.38
<b>Passive/Inept</b>	0.11	0.09	0.09	0.09	407	-1.83	0.06
<b>Irrelevant/Other</b>	0.005	0.01	0.006	0.02	407	.29	0.77

#### V. Recommendations for Use

T-tests of mean percentages across pictures (MPAs) show a significant difference between the Normative and Control groups for the Authority/Punish category. Marginal significance is found for Passive/Inept category. The user must become aware that multiple interviewers administered the measure for Year 4, and that the category assigned to each response is subject to the interviewer's judgment and interpretation, modest alphas are not surprising in quantifying reliability. Similarly, modest differences in means between samples were found. These differences are inconsistent across multiple years. The subjectivity of the evaluation must be taken into account.