

## **Problem Solving Discussion Rating – Parent**

*Grade 5/Year 6*

### **FAST Track Project Technical Report**

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#### **Citation**

##### *Instrument*

Oregon Social Learning Center (OSLC, 1991), Project LIFT: Problem Solving Discussion Rating, response format revised by the Conduct Problems Prevention Research Group (1996), as the Problem Solving Discussion Rating – (Grade 5+)

##### *Report*

Doyle, S.R. & McCarty, C.A. (2000). Problem Solving Discussion Rating – Parent (Technical Report) [On-line]. Available: <http://www.fasttrackproject.org/>

#### **Data Sources**

*Raw:* p6n

*Scored:* psp6

#### **I. Scale Description**

The Problem Solving Discussion Rating scale consists of a list of 7 questions concerning problem solving issues within the family. It was administered to one parent and the child in each family at grade 5, immediately following the problem-solving discussion task of the Parent-Child Interaction Task. This rating scale is a modification of a 6-item instrument developed by the Oregon Social Learning Center (1991). For each question, the respondent rates the issue on a 5-point scale. The particular rating scale differs by item.

#### **II. Report Sample**

This technical report is based upon Year 6, Cohort 1 data, including both High-Risk Control and Normative samples. With missing cases excluded, the total N (including overlap) was 380, with 316 Normative and 127 High-Risk Control youth. 83 cases (17.9% of the cohort) were missing observations for the entire measure, including 71 Normative youth and 28 High-Risk youth. Most of the missing data are assumed to have resulted from natural attrition from baseline at Year 1. The Normative sample consists of 157 (49.68%) males, with an ethnic breakdown of 147 (46.52%) Black, 158 (50.00%) White

and 11 (3.48%) others. The High-Risk Control sample consists of 91 (71.65%) males, with an ethnic breakdown of 59 (46.46%) Black, 65 (51.18%) White and 3 (2.36%) other races. The total sample had almost an equal percentage of respondents from the four different sites: Durham (28.68%), Nashville (22.89%), Pennsylvania (25.79%) and Seattle (22.63%).

### III. Scaling

A single confirmatory factor analysis (CFA), utilizing a least-squares estimation procedure was used to assess statistical support for the dimension of “Problem Solving”, which consisted of the first 5 items. The remaining two items were retained as single indicators of “type of discussion” and “frequency of family problem solving”. The results of the scaling and reliability assessment for the first 5 items and the correlation of the remaining two items, for both the Normative and High Risk Control samples are presented below.

	<b>Normative (n=316)</b>	<b>High Risk Control (n=127)</b>
<b>Problem Solving (CFA standardized loadings)</b>		
1. How well did you understand what the problem was?	.323	.283
2. How much did you agree on a solution?	.788	.773
3. Do you think you came up with some reasonable solutions?	.807	.784
4. How satisfied were you with this discussion?	.747	.741
5. Did you agree to take some action as a result of this discussion?	.578	.617
	GFI	.995
	RMR	.032
	Reliability	.777
		.996
		.035
		.768
<b>Additional Items</b>	<i>Inter-item correlations</i>	
6. How much was this discussion like those you have at home?	.444	.414
7. How often does your family talk about problems together to try and solve them?		

### IV. Differences Between Groups

A series of independent t-tests were conducted to assess differences between the Normative and High Risk Control samples. For these analyses, the Normative sample consisted of only Low Risk respondents, excluding 63 High Risk subjects previously included in the Normative sample. Results indicated two statistically significant higher mean scores on the individual items for the Low Risk Normative sample:

Low-Risk Normatives (n=253) vs High Risk Controls (n=127)

<b>Scale</b>	t-test	df	p-value	Means	
				Low-Risk Normative	High-Risk Control
Problem Solving	1.50	378	.1340	4.082	3.973
<b>Individual Items</b>					
6. Type of Discussion	2.56	378	.0110	3.964	3.717
7. Frequency of Family Problem Solving	2.10	220	.0368*	4.016	3.811

\* T-test with Satterthwaite correction for degrees of freedom (df) given statistical inequality of variances.

### V. Recommendations for Use

This version of the Problem Solving Discussion Rating scale is a measure of the parent's perception concerning the effects of a just-completed problem-solving discussion with his or her child. The Problem Solving Scale score can be used as a general measure of problem solving, and individual items can be used to assess the parent's ratings on problem understanding, agreement on solutions, type and satisfaction with the problem solving discussion and frequency of problem solving within the family. Additionally, since the ratings are obtained on both the parent and the child, the scale and item reponses presented here can be used to make a direct comparison between the responses by the primary caregiver and the child.

## **VI. Item and Scale Means and Standard Deviations (Std)**

Descriptive indices for the 7 items, and the scale score for "Problem Solving" are presented below. Note that the data from the Normative sample reported below includes the 63 High-Risk subjects excluded from the group analyses reported above.

	<b>Normative (n=316)</b>		<b>High Risk Control (n=127)</b>	
	<u>Mean</u>	<u>Std</u>	<u>Mean</u>	<u>Std</u>
<b>Problem Solving</b>				
<i>Average Scale Score of Problem Solving</i>	4.054	0.670	3.973	0.699
1. How well did you understand what the problem was?	4.651	0.810	4.315	0.906
2. How much did you agree on a solution?	3.794	0.959	3.709	1.099
3. Do you think you came up with some reasonable solutions?	3.915	0.941	3.882	0.940
4. How satisfied were you with this discussion?	3.953	0.957	3.819	0.946
5. Did you agree to take some action as a result of this discussion?	4.146	0.897	4.142	0.932
<b>Additional Items</b>				
6. How much was this discussion like those you have at home?	3.911	0.886	3.717	0.942
7. How often does your family talk about problems together to try and solve them?	3.981	0.851	3.811	0.941

## **VII. Scale Correlations**

Normative sample (n=316) above diagonal, High Risk Control sample (n=127) below diagonal.

	Problem Solving Scale	Type of Discussion	Frequency of Family Problem Solving
Problem Solving Scale	-	.345	.441
Type of Discussion	.280	-	.444
Frequency of Family Problem Solving	.272	.414	-