



Universität Zürich  
Pädagogisches Institut

University of Cambridge  
Institute of Criminology



*z-proso Zurich Project on the Social Development of Children*

Technical Report  
**Children Wave 1**

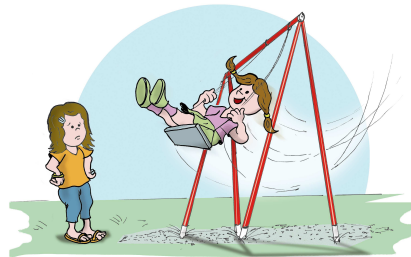
**How would you do it? – Social Problem Solving**

**OVERVIEW**

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# “How would you do it?” – Social Problem Solving

<b>Source/Developer</b>	<ul style="list-style-type: none"><li>• Dodge, K.A. &amp; Coie, D. (1987). “Social-information-processing factors in reactive and proactive aggression in children’s peer groups”, <i>Journal of Personality and Social Psychology</i>, 53, 1146-1158.</li><li>• Crick, N. R. &amp; Dodge, K.A. (1996). “Social information-processing mechanisms on reactive and proactive aggression”, <i>Child Development</i>, 67, 993-1002.</li></ul>
<b>Adaptations</b>	<ul style="list-style-type: none"><li>• The number of situations was limited to six.</li><li>• As done in Alsaker’s study (University of Bern), children are first asked on their likely emotional arousal in the presented situation.</li><li>• Some situational vignettes were adapted from Lösel (University of Erlangen-Nürnberg).</li><li>• The interviewing technique was adapted from Lösel’s protocol. In particular, children were free to give as many answers as they wanted, i.e. they were not forced to give a specific number of answers. Accordingly, the number of given answers can be used as a predictor variable.</li><li>• Situation vignettes were completely redrawn for the <i>z-proso</i> study.</li></ul>
<b>Description</b>	“How would you do it?” consists of six potentially conflictive situation vignettes, each supported by a drawing which is adapted for boys and girls. For each story, the child is asked to tell the interviewer how he/she would feel in such a situation and how he/she would try to solve this conflict. The interviewer elicits up to four different solutions. The responses are recorded as full text and simultaneously pre-coded by the interviewer.
<b>Measured Concepts/ Subdimensions</b>	<ul style="list-style-type: none"><li>• Likely emotional arousal in potentially conflictive situations</li><li>• Number and type of accessible behavioural responses in potentially conflictive situations</li></ul>
<b>Number of Items</b>	6 situational vignettes, each including: <ul style="list-style-type: none"><li>• 1 question on emotional arousal and</li><li>• up to 4 repeated questions on accessible behavioural responses</li></ul>
<b>Response Categories</b>	<ul style="list-style-type: none"><li>• <i>Feelings</i>: Choice of one feeling among “happy”, “sad”, “angry”, “fear”, and “no feeling”.</li><li>• <i>Conflict solutions</i>: Open record and instant coding by the interviewer into one of the following six categories: “aggressive”, “socially competent”, “punishment by an authority/adult”, “intervention of an authority/adult”, “passive/inappropriate”, and “irrelevant/other”.</li></ul>
<b>Item Example</b>	Pretend that this is you and that this is another child. The other child has been on the swing for a long, long time and doesn’t seem to want to share the swing with you. You would really like to play on the swing. <ul style="list-style-type: none"><li>• How would you feel if this would happen to you? Would you rather feel happy, scared, angry, or sad?</li><li>• What could you say or do so that you could play on the swing?</li></ul>
<b>Administration History</b>	Wave 1, Wave 3
<b>Instrument Image</b>	



## Feelings

### Variable Wording & Case Summary

Categories	Label	Feeling Situation 1 Frequencies (%)	Feeling Situation 2 Frequencies (%)	Feeling Situation 3 Frequencies (%)	Feeling Situation 4 Frequencies (%)	Feeling Situation 5 Frequencies (%)	Feeling Situation 6 Frequencies (%)
1	happy	107 (7.9%)	92 (6.8%)	15 (1.1%)	63 (4.6%)	12 (0.9%)	248 (18.2%)
2	sad	609 (44.7%)	831 (61.1%)	550 (40.4%)	592 (43.5%)	591 (43.4%)	796 (58.5%)
3	fear	34 (2.5%)	92 (6.8%)	68 (5.0%)	486 (35.7%)	39 (2.9%)	55 (4.0%)
4	angry	601 (44.2%)	334 (24.5%)	725 (53.3%)	184 (13.5%)	711 (52.2%)	239 (17.6%)
5	other	9 (0.7%)	12 (0.9%)	3 (0.2%)	27 (2.0%)	3 (0.2%)	18 (1.3%)
6	no answer (missings)	1 (0.1%)	0	0	9 (0.7%)	5 (0.4%)	5 (0.4%)

Total N = 1361

## Happy

### Descriptive Statistics

Variable Name	Missings (%)	Mean	Standard Deviation	Skewness	Kurtosis	Item-Scale Correlation	$\alpha$ If Item removed ( $\alpha = .593$ )
happy1	0	0.07	0.25	3.45	9.91	.416	.508
happy2	1 (0.1%)	0.08	0.27	3.13	7.83	.396	.516
happy3	0	0.01	0.10	9.38	86.07	.410	.559
happy4	9 (0.7%)	0.05	0.21	4.31	16.58	.332	.548
happy5	5 (0.4%)	0.01	0.09	10.50	108.41	.405	.565
happy6	5 (0.4%)	0.18	0.39	1.62	0.70	.336	.594

Comments:

- 1) All items with excessive skewness and high kurtosis;
- 2) Item happy6 with low item-scale-correlation and increased alpha when removed.

### Sum Index Descriptive Statistics

Group	N	Mean	Standard Deviation	Min.	Max.	Skewness	Kurtosis	ANOVA		
								df	F	p
Full sample	1361	0.39	0.83	0	6.00	2.77	9.89			
Gender								1	27.69	.000
Girls	666	0.27	0.64	0	6.00	3.30	15.47			
Boys	695	0.51	0.96	0	6.00	2.77	9.89			
Treatment								3	3.13	.025
Control	356	0.44	0.82	0	6.00	2.68	10.18			
Triple P	339	0.42	0.93	0	6.00	3.20	12.62			
PATHS	360	0.43	0.90	0	6.00	3.11	12.86			
Combination	306	0.27	0.60	0	4.00	2.74	9.00			

Comments:

- 1) All subgroups with excessive skewness and high kurtosis;
- 2) Significant F-value for *Gender* and *Treatment* group differences.

### Correlations with Subscales & DVs

Variable	r	p	N	Boys			Girls		
				r	p	N	r	p	N
Subscales									
Sad	-.436	***	1361	-.450	***	695	-.381	***	666
Fear	-.048	ns	1361	-.069	ns	695	-.024	ns	666
Angry	-.080	**	1361	-.144	***	695	-.069	ns	666
Child SBQ									
Aggression	-.005	ns	1359	-.038	ns	694	.016	ns	665
Prosociality	-.051	ns	1359	-.050	ns	694	-.001	ns	665
Teacher SBQ1.1									
Total Aggression	-.004	ns	1321	-.036	ns	673	-.026	ns	648
Prosociality	-.091	**	1296	-.052	ns	661	-.052	ns	635
Parent SBQ									
Aggression	-.007	ns	1206	-.027	ns	626	-.040	ns	580
Prosociality	-.021	ns	1191	.022	ns	615	-.025	ns	576

<sup>1</sup> \*\*\* p<.001, \*\* p<.01, \* p<.05, ns p>.05

Comments:

- 1) Significant correlations with *Angry* disappears for **Girls** subgroup.

## Sad

### Descriptive Statistics

Variable Name	Missings (%)	Mean	Standard Deviation	Skewness	Kurtosis	Item-Scale Correlation	$\alpha$ If Item removed ( $\alpha = .490$ )
sad1	0	0.61	0.49	-0.45	-1.80	.301	.416
sad2	1 (0.1%)	0.45	0.50	0.21	-1.96	.267	.434
sad3	0	0.40	0.49	0.39	-1.85	.247	.445
sad4	9 (0.7%)	0.44	0.50	0.25	-1.94	.171	.485
sad5	5 (0.4%)	0.44	0.50	0.26	-1.94	.219	.460
sad6	5 (0.4%)	0.59	0.50	-0.35	-1.88	.286	.424

Comments:

- 1) All items with low kurtosis.

### Sum Index Descriptive Statistics

Group	N	Mean	Standard Deviation	Min.	Max.	Skewness	Kurtosis	ANOVA		
								df	F	p
Full sample	1361	2.92	1.57	0	6.00	-0.09	-0.70			
Gender								1	116.38	.000
Girls	666	3.37	1.48	0	6.00	-0.25	-0.45			
Boys	695	2.48	1.54	0	6.00	0.08	-0.76			
Treatment								3	0.30	.828
Control	356	2.85	1.57	0	6.00	-0.17	-0.63			
Triple P	339	2.94	1.55	0	6.00	-0.09	-0.63			
PATHS	360	2.92	1.59	0	6.00	-0.06	-0.77			
Combination	306	2.96	1.59	0	6.00	-0.04	-0.77			

Comments:

- 1) Significant F-value for Gender group differences.

### Correlations with Subscales & DVs

Variable	r	p	N	Boys			Girls		
				r	p	N	r	p	N
Subscales									
Happy	-.436	***	1361	-.450	***	695	-.381	***	666
Fear	-.241	***	1361	-.156	***	695	-.344	***	666
Angry	-.732	***	1361	-.685	***	695	-.752	***	666
Child SBQ									
Aggression	-.094	**	1359	-.062	ns	694	-.087	*	665
Prosociality	.123	***	1359	.091	*	694	.087	*	665
Teacher SBQ1.1									
Total Aggression	-.078	**	1321	-.004	ns	673	-.048	ns	648
Prosociality	.156	***	1296	.136	***	661	.010	ns	635
Parent SBQ									
Aggression	-.092	**	1206	-.079	*	626	-.009	ns	580
Prosociality	.112	***	1191	.081	*	615	.048	ns	576

<sup>1</sup> \*\*\* p<.001, \*\* p<.01, \* p<.05, ns p>.05

Comments:

- 1) Significant correlations with Teacher SBQ Prosociality, Parent SBQ Prosociality and Aggression disappears for Girls subgroup;
- 2) Significant correlation with Child SBQ Aggression disappears for Boys subgroup.

## Fear

### Descriptive Statistics

Variable Name	Missings (%)	Mean	Standard Deviation	Skewness	Kurtosis	Item-Scale Correlation	$\alpha$ If Item removed ( $\alpha = .130$ )
fear1	0	0.07	0.25	3.45	9.91	.107	.060
fear2	1 (0.1%)	0.03	0.16	6.09	35.16	.031	.126
fear3	0	0.05	0.22	4.14	15.13	.055	.109
fear4	9 (0.7%)	0.36	0.48	0.59	-1.66	.041	.176
fear5	5 (0.4%)	0.03	0.17	5.65	29.91	.025	.129
fear6	5 (0.4%)	0.04	0.20	4.66	19.77	.095	.084

Comments:

- 1) All items except fear4 with excessive skewness and high kurtosis, item fear4 with low kurtosis;
- 2) Low item-scale-correlation, low alpha value.

### Sum Index Descriptive Statistics

Group	N	Mean	Standard Deviation	Min.	Max.	Skewness	Kurtosis	ANOVA		
								df	F	p
Full sample	1361	0.57	0.70	0	4.00	1.13	1.36			
Gender								1	0.28	.599
Girls	666	0.56	0.70	0	4.00	1.17	1.31			
Boys	695	0.58	0.69	0	4.00	1.10	1.43			
Treatment								3	1.02	.381
Control	356	0.57	0.68	0	4.00	1.11	1.54			
Triple P	339	0.52	0.65	0	3.00	1.00	0.47			
PATHS	360	0.58	0.73	0	3.00	1.11	0.71			
Combination	306	0.61	0.72	0	4.00	1.26	2.47			

Comments:

- 1) All subgroups with excessive skewness, all subgroups except Triple P and PATHS with high kurtosis.

### Correlations with Subscales & DVs

Variable	r	p	N	Boys			Girls		
				r	p	N	r	p	N
Subscales									
Happy	-.048	ns	1361	-.069	ns	695	-.024	ns	666
Sad	-.241	***	1361	-.156	***	695	-.344	***	666
Angry	-.189	***	1361	-.251	***	695	-.137	***	666
Child SBQ									
Aggression	-.003	ns	1359	.024	ns	694	-.035	ns	665
Prosociality	.037	ns	1359	.068	ns	694	.005	ns	665
Teacher SBQ1.1									
Total Aggression	-.018	ns	1321	-.016	ns	673	-.030	ns	648
Prosociality	.024	ns	1296	-.018	ns	661	.083	*	635
Parent SBQ									
Aggression	-.010	ns	1206	.004	ns	626	-.031	ns	580
Prosociality	-.042	ns	1191	-.084	*	615	.007	ns	576

1 \*\*\* p<.001, \*\* p<.01, \* p<.05, ns p>.05

## Angry

### Descriptive Statistics

Variable Name	Missings (%)	Mean	Standard Deviation	Skewness	Kurtosis	Item-Scale Correlation	$\alpha$ If Item removed ( $\alpha = .417$ )
angry1	0	0.25	0.43	1.19	-0.60	.218	.362
angry2	1 (0.1%)	0.44	0.50	0.23	-1.95	.222	.359
angry3	0	0.53	0.50	-0.13	-1.99	.231	.352
angry4	9 (0.7%)	0.14	0.34	2.13	2.52	.159	.395
angry5	5 (0.4%)	0.52	0.50	-0.10	-1.99	.207	.369
angry6	5 (0.4%)	0.18	0.38	1.70	0.90	.160	.394

Comments:

- 1) Item angry4 with excessive skewness and high kurtosis, angry1 and angry6 high skewness, angry2, angry3 and angry5 with low kurtosis.

### Sum Index Descriptive Statistics

Group	N	Mean	Standard Deviation	Min.	Max.	Skewness	Kurtosis	ANOVA		
								df	F	p
Full sample	1361	2.35	1.37	0	6.00	0.34	-0.28			
Gender								1	70.03	.000
Girls	666	1.75	1.26	0	6.00	0.60	0.19			
Boys	695	2.35	1.37	0	6.00	0.34	-0.28			
Treatment								3	0.07	.975
Control	356	2.06	1.37	0	6.00	0.40	-0.21			
Triple P	339	2.06	1.36	0	6.00	0.47	-0.15			
PATHS	360	2.03	1.28	0	6.00	0.48	-0.43			
Combination	306	2.07	1.40	0	6.00	0.55	-0.10			

Comments:

- 1) Significant F-value for Gender group differences.

### Correlations with Subscales & DVs

Variable	r	p	N	Boys			Girls		
				r	p	N	r	p	N
Subscales									
Happy	-.080	***	1361	-.144	***	695	-.069	ns	666
Sad	-.732	***	1361	-.685	***	695	-.752	***	666
Fear	-.189	***	1361	-.251	***	695	-.137	***	666
Child SBQ									
Aggression	.119	***	1359	.092	*	694	.118	***	665
Prosociality	-.122	***	1359	-.082	*	694	-.113	***	665
Teacher SBQ1.1									
Total Aggression	.099	***	1321	.031	ns	673	.095	*	648
Prosociality	-.128	***	1296	-.090	*	661	-.034	ns	635
Parent SBQ									
Aggression	.121	***	1206	.116	***	626	.047	ns	580
Prosociality	-.087	**	1191	-.053	ns	615	-.044	ns	576

<sup>1</sup> \*\*\* p<.001, \*\* p<.01, \* p<.05, ns p>.05

Comments:

- 1) Significant correlations with Teacher SBQ Prosociality and Parent SBQ Aggression disappear for Girls subgroup;
- 2) Significant correlation with Teacher SBQ total Aggression disappears for Boys subgroup.

## Problem solving& Number of solutions

### Quantity

#### Number of Solutions

##### Valid answers

Number of solutions	Boys			Girls			Total		
	Number of solutions	Boys	Girls	Total	Number of solutions	Boys	Girls	Total	
1	-	-	-	-	14	27	48	75 (5.5%)	
2	1	0	1	1 (0.1%)	15	25	22	47 (3.5%)	
3	0	1	1	1 (0.1%)	16	20	15	35 (2.6%)	
4	1	4	4	5 (0.4%)	17	16	13	29 (2.1%)	
5	11	9	9	20 (1.5%)	18	6	10	16 (1.2%)	
6	91	75	75	166 (12.2%)	19	5	7	12 (0.9%)	
7	75	59	59	134 (9.9%)	20	4	7	11 (0.8%)	
8	67	63	63	130 (9.6%)	21	2	0	2 (0.1%)	
9	50	74	74	134 (9.9%)	22	2	4	6 (0.4%)	
10	66	75	75	124 (9.1%)	23	1	2	3 (0.2%)	
11	82	87	87	141 (10.4%)	24	3	2	5 (0.4%)	
12	85	64	64	149 (11.0%)	25	-	-	-	
13	53	44	44	97 (7.1%)					

#### Sum Index Descriptive Statistics

Group	N	Mean	Standard Deviation	Min.	Max.	Skewness	Kurtosis	ANOVA		
								df	F	p
Full sample	1358	10.47	3.58	2	24	0.79	0.73			
Gender								1	0.79	.374
Girls	665	10.56	3.62	3	24	0.81	0.71			
Boys	693	10.39	3.56	2	24	0.77	0.74			
Treatment								3	11.62	.000
Control	356	9.60	3.15	5	22	0.97	1.20			
Triple P	338	10.49	3.49	4	22	0.57	0.24			
PATHS	358	11.12	3.52	3	24	0.48	0.26			
Combination	306	10.90	4.00	2	24	1.02	1.21			
Interviewer								26	2.68	.000
Total	1214	10.45	3.57	4	24	0.83	0.80			
Min										
P.Brandao	74	9.80	3.34	4	24	1.38	3.53			
J.Hurst	94	10.37	3.30	4	18	0.15	-0.84			
E.Sokoli	24	9.38	3.50	4	17	0.80	-0.05			
Max										
P.Brandao	74	9.80	3.34	4	24	1.38	3.53			
U.Meidert	89	12.90	3.68	6	24	0.59	1.18			
N.Shajiei	94	10.23	3.72	6	24	1.23	1.99			
M.Kalanderi	50	11.08	3.94	6	24	0.81	0.96			

##### Comments:

- 1) Control and Combination subgroups with high kurtosis, Combination subgroup with excessive skewness;
- 2) Significant F-value for Treatment group and interviewer differences

#### Correlations with Subscales & DVs

Variable	r	p	N	Boys			Girls		
				r	p	N	r	p	N
Number of solutions									
Child SBQ									
Aggression	.084	***	1356	.067	ns	692	.106	**	664
Prosociality	.111	***	1356	.130	***	692	.085	*	664
Teacher SBQ1.1									
Total Aggression	.042	ns	1319	.003	ns	671	.112	**	648
Prosociality	.029	ns	1294	.072	ns	659	-.031	ns	635
Parent SBQ									
Aggression	.037	ns	1203	.035	ns	624	.049	ns	579
Prosociality	.066	*	1188	.032	ns	613	.098	*	575

1 \*\*\* p<.001, \*\* p<.01, \* p<.05, ns p>.05

##### Comments:

Significant correlation with Child SBQ Aggression and Parent SBQ Prosociality disappears for Boys subgroup.



<b>Quality</b>																																	
<b>Factor Analysis</b>	Solutions: Quality																																
<b>Method</b>	<ul style="list-style-type: none"> <li>• PCA with VARIMAX rotation</li> <li>• Extraction criterion: Eigenvalues &gt; 1</li> <li>• Only loadings &gt; .42 are displayed</li> </ul>																																
<b>Rotated Component Matrix</b>	<table border="1"> <thead> <tr> <th></th> <th colspan="3">Components</th> </tr> <tr> <th></th> <th>1</th> <th>2</th> <th>3</th> </tr> </thead> <tbody> <tr> <td>Aggressive</td> <td>.878</td> <td></td> <td></td> </tr> <tr> <td>Competent</td> <td>-.908</td> <td></td> <td></td> </tr> <tr> <td>Passive</td> <td>.434</td> <td></td> <td></td> </tr> <tr> <td>Intervention Authority</td> <td></td> <td>.899</td> <td></td> </tr> <tr> <td>Punishment Authority</td> <td></td> <td></td> <td>.837</td> </tr> <tr> <td>Irrelevant</td> <td></td> <td></td> <td>-.471</td> </tr> </tbody> </table> <p><i>Comments:</i>  1) Only first answer categories for each situation are analyzed</p>		Components				1	2	3	Aggressive	.878			Competent	-.908			Passive	.434			Intervention Authority		.899		Punishment Authority			.837	Irrelevant			-.471
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<b>Component Labels</b>	<ul style="list-style-type: none"> <li>• 1 – Aggressive/Competent/Passive</li> <li>• 2 – Punishment Authority/Irrelevant</li> <li>• 3 – Intervention Authority</li> </ul>																																

## Aggressive

### Descriptive Statistics

Variable Name	Missings (%)	Mean	Standard Deviation	Skewness	Kurtosis	Item-Scale Correlation	$\alpha$ If Item removed ( $\alpha = .511$ )
K2250_2a	8 (0.6%)	0.08	0.28	3.00	6.99	.346	.427
K2350_2a	5 (0.4%)	0.04	0.19	4.76	20.71	.284	.469
K2450_2a	19 (1.4%)	0.27	0.44	1.02	-0.96	.317	.451
K2550_2a	6 (0.4%)	0.03	0.17	5.64	29.89	.212	.495
K2650_2a	5 (0.4%)	0.20	0.40	1.53	0.33	.317	.439
K2750_2a	52 (3.8%)	0.06	0.23	3.88	13.05	.199	.494

Comments:

- 1) All items with excessive skewness;
- 2) K2250\_2a, K2350\_2a, K2550\_2a, K2750\_2a with high kurtosis.

### Sum Index Descriptive Statistics

Group	N	Mean	Standard Deviation	Min.	Max.	Skewness	Kurtosis	ANOVA		
								df	F	p
Full sample	1358	0.67	0.97	0	6	1.74	3.56			
Gender								1	40.46	.000
Girls	665	0.50	0.83	0	6	2.00	5.02			
Boys	693	0.83	1.07	0	6	1.50	2.49			
Treatment								3	1.07	.359
Control	356	0.68	1.01	0	5	1.55	1.93			
Triple P	338	0.60	0.89	0	6	1.91	5.19			
PATHS	358	0.73	0.99	0	6	1.57	2.90			
Combination	306	0.68	1.01	0	6	2.01	5.02			

Comments:

- 1) All subgroups with excessive skewness and high kurtosis;
- 2) Significant F-value for Gender group differences

### Correlations with Subscales & DVs

Variable	r	p	N	Boys			Girls		
				r	p	N	r	p	N
Subscales									
Competent	-.680	***	1358	-.711	***	693	.607	***	665
PunishmentAuthority	.009	ns	1358	.009	ns	693	-.006	ns	665
InterventionAuthority	-.094	**	1358	-.116	**	693	-.075	ns	665
Passive	.025	ns	1358	.033	ns	693	-.026	ns	665
Irrelevant	-.007	ns	1358	.043	ns	693	-.083	*	665
Number of solutions	.204	***	1358	.171	***	693	.270	***	665
Child SBQ									
Aggression	.151	***	1356	.154	***	692	.122	**	664
Prosociality	-.094	**	1356	-.076	*	692	-.066	ns	664
Teacher SBQ1.1									
Total Aggression	.064	*	1319	.023	ns	671	.048	ns	648
Prosociality	-.092	**	1294	-.025	ns	659	-.077	ns	635
Parent SBQ									
Aggression	.047	ns	1203	.051	ns	624	-.035	ns	579
Prosociality	-.032	ns	1188	-.011	ns	613	.010	ns	575

1 \*\*\* p<.001, \*\* p<.01, \* p<.05, ns p>.05

Comments:

- 1) Significant correlations with *InterventionAuthority* and *Child SBQ Prosociality* disappear for **Girls** subgroup;
- 2) Significant correlations with *Teacher SBQ Aggression* and *Prosociality* get insignificant after division in **Boys** and **Girls** subgroups.

## Competent

### Descriptive Statistics

Variable Name	Missings (%)	Mean	Standard Deviation	Skewness	Kurtosis	Item-Scale Correlation	$\alpha$ If Item removed ( $\alpha = .581$ )
K2250_2k	8 (0.6%)	0.81	0.39	-1.56	0.55	.381	.508
K2350_2k	5 (0.4%)	0.90	0.31	-2.60	4.76	.355	.527
K2450_2k	19 (1.4%)	0.53	0.50	-0.12	-2.00	.342	.530
K2550_2k	6 (0.4%)	0.93	0.25	-3.51	10.34	.197	.578
K2650_2k	5 (0.4%)	0.69	0.46	-0.82	-1.32	.394	.498
K2750_2k	52 (3.8%)	0.80	0.40	-1.21	0.27	.263	.559

Comments:

- 1) K2250\_2k, K2350\_2k, K2550\_2k, K2750\_2k with low skewness;
- 2) K2350\_2k, K2550\_2k with high kurtosis;
- 3) K2450\_2k, K2650\_2k with low kurtosis.

### Sum Index Descriptive Statistics

Group	N	Mean	Standard Deviation	Min.	Max.	Skewness	Kurtosis	ANOVA		
								df	F	p
Full sample	1358	4.62	1.35	0	6	-0.92	0.25			
Gender								1	42.39	.000
Girls	665	4.86	1.21	0	6	-1.02	0.54			
Boys	693	4.39	1.43	0	6	-0.77	-0.09			
Treatment								3	0.44	.723
Control	356	4.56	1.44	0	6	-0.86	-0.01			
Triple P	338	4.63	1.32	0	6	-0.88	0.16			
PATHS	358	4.67	1.34	0	6	-0.98	0.31			
Combination	306	4.63	1.27	0	6	-1.00	0.67			

Comments:

- 1) Girls and Combination subgroups with low skewness;
- 2) Significant F-value for Gender group differences.

### Correlations with Subscales & DVs

Variable	r	p	N	Boys			Girls		
				r	p	N	r	p	N
Subscales									
Aggressive	-.680	**	1358	-.711	***	693	.607	***	665
PunishmentAuthority	-.151	***	1358	-.170	***	693	-.108	**	665
InterventionAuthority	-.419	***	1358	-.357	***	693	-.508	***	665
Passive	-.466	***	1358	-.469	***	693	-.445	***	665
Irrelevant	-.213	***	1358	-.216	***	693	-.211	***	665
Number of solutions	-.047	ns	1358	-.019	ns	693	-.093	*	665
Child SBQ									
Aggression	-.097	***	1356	-.119	***	692	-.040	ns	664
Prosociality	.167	***	1356	.182	***	692	.097	*	664
Teacher SBQ1.1									
Total Aggression	-.055	*	1319	-.015	ns	671	-.034	ns	648
Prosociality	.128	***	1294	.081	*	659	.082	*	635
Parent SBQ									
Aggression	-.045	ns	1203	-.040	ns	624	.023	ns	579
Prosociality	.069	*	1188	.034	ns	613	.045	ns	575

1 \*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ , ns  $p > .05$

Comments:

- 1) Significant correlation with Child SBQ Aggression disappears for Girls subgroup;
- 2) Significant correlations with Teacher SBQ Aggression and Parent SBQ Prosociality get insignificant after division in Boys and Girls subgroups.

## Passive

### Descriptive Statistics

Variable Name	Missings (%)	Mean	Standard Deviation	Skewness	Kurtosis	Item-Scale Correlation	$\alpha$ If Item removed ( $\alpha = .325$ )
K2250_2p	8 (0.6%)	0.05	0.21	4.27	16.23	.198	.248
K2350_2p	5 (0.4%)	0.04	0.19	4.98	22.80	.204	.251
K2450_2p	19 (1.4%)	0.07	0.25	3.42	9.70	.128	.304
K2550_2p	6 (0.4%)	0.02	0.14	6.62	41.91	.082	.322
K2650_2p	5 (0.4%)	0.01	0.11	9.05	80.06	.101	.316
K2750_2p	52 (3.8%)	0.11	0.31	2.55	4.49	.187	.259

Comments:

- 1) All item with excessive skewness and high kurtosis;
- 2) Low item-scale-correlation, low alpha value.

### Sum Index Descriptive Statistics

Group	N	Mean	Standard Deviation	Min.	Max.	Skewness	Kurtosis	ANOVA		
								df	F	p
Full sample	1358	0.29	0.60	0	5	2.53	8.09			
Gender								1	10.51	.001
Girls	665	0.23	0.54	0	4	2.83	10.36			
Boys	693	0.34	0.66	0	5	2.29	6.51			
Treatment								3	4.35	.005
Control	356	0.34	0.69	0	5	2.65	9.38			
Triple P	338	0.35	0.68	0	4	2.20	5.18			
PATHS	358	0.21	0.48	0	3	2.40	6.06			
Combination	306	0.25	0.54	0	3	2.31	5.71			

Comments:

- 1) All subgroups with excessive skewness and high kurtosis;
- 2) Significant F-values for *Gender* and *Treatment* group differences.

### Correlations with Subscales & DVs

Variable	r	p	N	Boys			Girls		
				r	p	N	r	p	N
Subscales									
Aggressive	.025	ns	1358	.033	ns	693	-.026	ns	665
Competent	-.466	***	1358	-.469	***	693	-.445	***	665
PunishmentAuthority	-.016	ns	1358	-.001	ns	693	-.052	ns	665
InterventionAuthority	.019	ns	1358	.007	ns	693	.033	ns	665
Irrelevant	.003	ns	1358	-.026	ns	693	.038	ns	665
Number of solutions	-.053	ns	1358	-.051	ns	693	-.053	ns	665
Child SBQ									
Aggression	-.008	ns	1356	.015	ns	692	-.057	ns	664
Prosociality	-.080	**	1356	-.119	**	692	.007	ns	664
Teacher SBQ1.1									
Total Aggression	.004	ns	1319	-.023	ns	671	.001	ns	648
Prosociality	-.087	**	1294	-.090	*	659	-.021	ns	635
Parent SBQ									
Aggression	-.002	ns	1203	.000	ns	624	-.042	ns	579
Prosociality	-.033	ns	1188	-.010	ns	613	-.030	ns	575

1 \*\*\* p<.001, \*\* p<.01, \* p<.05, ns p>.05

Comments:

- 1) Significant correlations with *Child SBQ Prosociality* and *Teacher SBQ Prosociality* disappear for **Girls** subgroup.

## Intervention Authority

### Descriptive Statistics

Variable Name	Missings (%)	Mean	Standard Deviation	Skewness	Kurtosis	Item-Scale Correlation	$\alpha$ If Item removed ( $\alpha = .495$ )
K2250_2ia	8 (0.6%)	0.05	0.21	4.35	16.94	.360	.388
K2350_2ia	5 (0.4%)	0.02	0.15	6.18	36.25	.463	.463
K2450_2ia	19 (1.4%)	0.09	0.29	2.85	6.13	.411	.411
K2550_2ia	6 (0.4%)	0.01	0.06	10.50	108.33	.491	.491
K2650_2ia	5 (0.4%)	0.08	0.28	3.04	7.23	.424	.424
K2750_2ia	52 (3.8%)	0.01	0.10	9.53	88.85	.484	.484

Comments:

- 1) All items with excessive skewness and high kurtosis.

### Sum Index Descriptive Statistics

Group	N	Mean	Standard Deviation	Min.	Max.	Skewness	Kurtosis	ANOVA		
								df	F	p
Full sample	1358	0.26	0.64	0	5	3.18	12.26			
Gender								1	0.17	.682
Girls	665	0.25	0.65	0	5	3.29	12.62			
Boys	693	0.27	0.63	0	5	3.06	11.97			
Treatment								3	1.07	.360
Control	356	0.27	0.66	0	4	2.85	9.00			
Triple P	338	0.30	0.67	0	5	3.12	12.71			
PATHS	358	0.21	0.57	0	5	3.88	20.16			
Combination	306	0.27	0.67	0	4	3.00	10.04			

Comments:

- 1) All subgroups with excessive skewness and high kurtosis.

### Correlations with Subscales & DVs

Variable	r	p	N	Boys			Girls		
				r	p	N	r	p	N
Subscales									
Aggressive	-.094	**	1358	-.116	***	693	-.075	ns	665
Competent	-.419	***	1358	-.357	***	693	-.508	***	665
PunishmentAuthority	.009	ns	1358	.007	ns	693	.010	ns	665
Passive	.019	ns	1358	.007	ns	693	.033	ns	665
Irrelevant	.012	ns	1358	.000	ns	693	.024	ns	665
Number of solutions	-.022	ns	1358	-.044	ns	693	.001	ns	665
Child SBQ									
Aggression	-.002	ns	1356	-.013	ns	692	.009	ns	664
Prosociality	-.030	ns	1356	-.052	ns	692	-.001	ns	664
Teacher SBQ1.1									
Total Aggression	-.004	ns	1319	.012	ns	671	-.028	ns	648
Prosociality	-.005	ns	1294	.024	ns	659	-.033	ns	635
Parent SBQ									
Aggression	.007	ns	1203	.017	ns	624	-.011	ns	579
Prosociality	-.017	ns	1188	.000	ns	613	-.032	ns	575

1 \*\*\* p<.001, \*\* p<.01, \* p<.05, ns p>.05

Comments:

- 1) Significant correlation with Aggressive disappears for Girls subgroup.

## Punishment Authority

### Descriptive Statistics

Variable Name	Missings (%)	Mean	Standard Deviation	Skewness	Kurtosis	Item-Scale Correlation	$\alpha$ If Item removed ( $\alpha = .291$ )
K2250_2pa	8 (0.6%)	0	0	-	-	-	-
K2350_2pa	5 (0.4%)	0	0.03	36.82	1356.00	-.004	.335
K2450_2pa	19 (1.4%)	0.02	0.13	7.28	51.13	.222	.145
K2550_2pa	6 (0.4%)	0	0	-	-	-	-
K2650_2pa	5 (0.4%)	0.01	0.11	9.05	20.84	.237	.098
K2750_2pa	52 (3.8%)	0	0.05	80.06	432.99	.165	.249

Comments:

- 1) All items with excessive skewness and high kurtosis;
- 2) K2250\_2pa and K2550\_2pa only one value;
- 3) K2350\_pa with low item-scale-correlation and increased alpha when removed;
- 4) Low item-scale-correlation, low alpha value.

### Sum Index Descriptive Statistics

Group	N	Mean	Standard Deviation	Min.	Max.	Skewness	Kurtosis	ANOVA		
								df	F	p
Full sample	1358	0.03	0.20	0	3	7.38	67.11			
Gender								1	1.52	.219
<i>Girls</i>	665	0.03	0.16	0	1	6.03	34.41			
<i>Boys</i>	693	0.04	0.23	0	3	7.28	63.20			
Treatment								3	2.09	.100
<i>Control</i>	356	0.04	0.23	0	3	7.88	79.25			
<i>Triple P</i>	338	0.01	0.09	0	1	10.52	109.30			
<i>PATHS</i>	358	0.04	0.21	0	2	5.68	35.01			
<i>Combination</i>	306	0.04	0.23	0	2	6.03	39.44			

Comments:

- 1) All subgroups with excessive skewness and high kurtosis.

### Correlations with Subscales & DVs

Variable	r	p	N	Boys			Girls		
				r	p	N	r	p	N
Subscales									
<i>Aggressive</i>	.009	ns	1358	.009	ns	693	-.006	ns	665
<i>Competent</i>	-.151	***	1358	-.170	***	693	-.108	**	665
<i>InterventionAuthority</i>	.009	ns	1358	.007	ns	693	.010	ns	665
<i>Passive</i>	-.016	ns	1358	-.001	ns	693	-.052	ns	665
<i>Irrelevant</i>	-.013	ns	1358	-.041	ns	693	.029	ns	665
<i>Number of solutions</i>	-.001	ns	1358	-.037	ns	693	.057	ns	665
Child SBQ									
<i>Aggression</i>	-.051	ns	1356	-.060	ns	692	-.048	ns	664
<i>Prosociality</i>	-.053	*	1356	-.076	*	692	-.001	ns	664
Teacher SBQ1.1									
<i>Total Aggression</i>	.031	ns	1319	-.004	ns	671	.085	*	648
<i>Prosociality</i>	-.058	*	1294	-.055	ns	659	-.041	ns	635
Parent SBQ									
<i>Aggression</i>	.016	ns	1203	.008	ns	624	.015	ns	579
<i>Prosociality</i>	-.011	ns	1188	-.030	ns	613	.038	ns	575

1 \*\*\* p<.001, \*\* p<.01, \* p<.05, ns p>.05

Comments:

- 1) Significant correlation with *Child SBQ Prosociality* disappears for **Girls** subgroup.

## Irrelevant

### Descriptive Statistics

Variable Name	Missings (%)	Mean	Standard Deviation	Skewness	Kurtosis	Item-Scale Correlation	$\alpha$ If Item removed ( $\alpha = .281$ )
K2250_2i	8 (0.6%)	0.01	0.10	9.35	85.53	.134	.238
K2350_2i	5 (0.4%)	0	0.06	16.40	267.19	.126	.243
K2450_2i	19 (1.4%)	0.02	0.14	6.98	46.81	.076	.299
K2550_2i	6 (0.4%)	0.01	0.08	12.16	146.11	.214	.197
K2650_2i	5 (0.4%)	0.01	0.05	12.17	146.22	.179	.218
K2750_2i	52 (3.8%)	0.02	0.15	6.27	37.40	.089	.297

Comments:

- 1) All items with excessive skewness and high kurtosis;
- 2) K2750i with low item-scale-correlation and increased alpha when removed;
- 3) Low item-scale-correlation, low alpha value.

### Sum Index Descriptive Statistics

Group	N	Mean	Standard Deviation	Min.	Max.	Skewness	Kurtosis	ANOVA		
								df	F	p
Full sample	1358	0.07	0.30	0	4	5.48	40.44			
Gender								1	0.41	.525
Girls	665	0.05	0.30	0	4	6.37	57.71			
Boys	693	0.08	0.30	0	3	4.69	25.94			
Treatment								3	1.17	.318
Control	356	0.09	0.31	0	3	3.67	13.89			
Triple P	338	0.05	0.24	0	2	5.52	33.07			
PATHS	358	0.07	0.36	0	4	6.79	56.74			
Combination	306	0.69	0.27	0	2	3.95	15.86			

Comments:

- 1) All subgroups with excessive skewness and high kurtosis.

### Correlations with Subscales & DVs

Variable	r	p	N	Boys			Girls		
				r	p	N	r	p	N
Subscales									
Aggressive	-.007	ns	1358	.043	ns	693	-.083	*	665
Competent	-.213	***	1358	-.216	***	693	-.211	***	665
PunishmentAuthority	-.013	ns	1358	-.041	ns	693	.029	ns	665
InterventionAuthority	.012	ns	1358	.000	ns	693	.024	ns	665
Passive	.003	ns	1358	-.026	ns	693	.038	ns	665
Number of solutions	-.066	*	1358	-.074	ns	693	-.058	ns	665
Child SBQ									
Aggression	.030	ns	1356	.096	*	692	-.046	ns	664
Prosociality	-.100	ns	1356	-.097	*	692	-.102	**	664
Teacher SBQ1.1									
Total Aggression	.048	ns	1319	.035	ns	671	.059	ns	648
Prosociality	-.011	ns	1294	-.028	ns	659	.032	ns	635
Parent SBQ									
Aggression	.017	ns	1203	-.022	ns	624	.066	ns	579
Prosociality	-.055	ns	1188	-.052	ns	613	-.049	ns	575

1 \*\*\* p<.001, \*\* p<.01, \* p<.05, ns p>.05