

How adolescents evaluate political institutions and develop political trust. A cross-national study.

9. Appendices

9.1. Appendix A: sample characteristics, descriptive statistics, and missing data.

Table A1. Sample characteristics and descriptive statistics main individual-level variables by country.

Country	N	Girls (in %)	Trust in						Evaluations		Norms		Knowledge	
			Government		Parties		Parliament		M	SD	M	SD	M	SD
			M	SD	M	SD	M	SD						
Brazil	5885	50.2	2.59	0.94	2.26	0.91	2.50	0.88	50.30	10.18	49.19	9.78	456.67	102.04
Bulgaria	3113	51.5	2.41	0.98	2.15	0.90	2.31	0.90	47.01	11.31	47.77	9.98	455.92	103.62
Chinese Taipei	3852	48.5	2.78	0.73	2.43	0.78	2.80	0.73	54.70	9.45	57.17	12.45	583.06	88.29
Colombia	4193	48.5	2.45	0.97	2.18	0.91	2.28	0.91	51.54	10.82	46.17	9.90	452.07	89.79
Croatia	2759	51.2	2.16	0.76	2.01	0.72	2.11	0.77	46.36	8.49	51.92	8.35	531.32	82.85
Cyprus	3136	49.9	2.35	0.96	2.13	0.91	2.21	0.91	48.24	10.33	48.14	10.49	458.96	97.90
Denmark	4769	51.1	2.91	0.68	2.55	0.70	2.78	0.71	54.28	7.50	51.84	8.44	555.89	104.78
Estonia	2685	49.4	2.85	0.80	2.26	0.72	2.59	0.77	51.63	8.19	49.37	9.55	545.15	97.11
France	3533	49.6	2.57	0.89	2.19	0.84	2.43	0.85	51.09	9.15	48.28	8.95	508.28	92.39
Italy	2945	49.0	2.53	0.80	2.26	0.76	2.52	0.78	48.66	9.67	50.49	7.91	522.99	88.77
Latvia	2876	50.1	2.48	0.86	2.28	0.81	2.35	0.84	47.83	9.25	47.14	9.90	490.11	85.09
Lithuania	3560	49.0	2.74	0.79	2.43	0.78	2.47	0.82	49.41	9.03	47.12	8.75	508.88	95.42
Malta	2720	49.3	2.53	0.91	2.20	0.89	2.39	0.91	52.16	10.35	48.01	9.56	489.55	103.28
Netherlands	2609	48.0	2.81	0.73	2.58	0.73	2.71	0.77	53.26	8.49	49.98	9.97	508.29	98.11
Norway	5673	48.6	3.09	0.70	2.72	0.74	3.00	0.74	56.63	8.99	49.86	10.28	529.13	105.09
Poland	4434	51.8	2.06	0.77	1.96	0.68	2.05	0.72	46.05	8.72	54.41	8.51	554.22	90.64
Serbia	2640	51.0	2.58	0.98	2.10	0.90	2.45	0.97	49.50	10.79	49.16	10.13	463.94	89.91
Slovak Republic	3202	50.8	2.28	0.91	2.03	0.80	2.22	0.86	45.25	9.62	49.36	9.17	501.10	96.14
Slovenia	3466	49.6	2.25	0.90	2.16	0.83	2.29	0.86	50.09	9.54	50.04	10.64	504.06	86.11
Spain	3487	49.4	2.38	0.87	2.09	0.81	2.32	0.80	50.15	9.17	49.64	9.20	509.70	89.98
Sweden	3263	49.8	2.95	0.78	2.66	0.74	2.92	0.79	54.02	8.48	54.28	10.39	564.61	110.11
Romania	2768	49.6	2.42	0.91	2.21	0.84	2.30	0.90	46.42	10.00	50.83	7.40	470.12	98.19
North Rhine- Westphalia	3266	44.7	2.93	0.76	2.46	0.74	2.77	0.78	52.87	7.71	48.68	7.98	524.48	100.49
Schleswig- Holstein	1487	47.0	2.92	0.75	2.49	0.71	2.79	0.74	52.01	7.78	50.23	8.41	543.89	103.09
<i>Country average</i>		<i>49.54</i>	<i>2.58</i>	<i>0.84</i>	<i>2.28</i>	<i>0.80</i>	<i>2.48</i>	<i>0.82</i>	<i>50.39</i>	<i>9.29</i>	<i>49.96</i>	<i>9.42</i>	<i>509.68</i>	<i>95.80</i>

Notes: All values represent country-level means (M), percentages (%), and standard deviations (SD) for individual-level variables.

1 **Table A2.** Missing data.

Variable	Missing	
	N	%
Political trust	1,4801.80	
Evaluations	3,8084.63	
Knowledge	0	0.00
Norms	3,9584.81	
Gender	801	0.97
SES	1,6892.05	
Political interest	2,1532.62	

2 *Note:* N total is 82,321.

3 *Source:* ICCS 2022.

4 **9.2. Appendix B: standardized results.**

5 **Table B1.** Institutional quality, evaluations, and political trust (direct and indirect effects).

Independent variables	M1			M2			M3			M4		
	B	SE	<i>p</i>	B	SE	<i>p</i>	B	SE	<i>p</i>	B	SE	<i>p</i>
(Intercept)	-0.052	0.149	^{ns}				-0.083	0.154	^{ns}	-0.037	0.088	^{ns}
Direct Effects												
Between (country)												
Institutional quality (c)	0.706	0.125	***				0.614	0.144	***	0.256	0.122	*
Within (student)												
Evaluations				0.659	0.015	***	0.657	0.016	***	0.637	0.012	***
Political knowledge							0.038	0.013	**	0.038	0.014	**
Democratic Norms							-0.047	0.009	***	-0.048	0.009	***
Indirect effects												
	<i>No</i>			<i>No</i>			<i>No</i>			<i>Yes</i>		
N students	78376			76545			75505			76357		
N countries	24			24			24			24		
ICC	0.129			0.049			0.047			0.140		
R ² (student)	0.012			0.443			0.444			0.403		
R ² (country)	0.499			/			0.377			0.794		
AIC	1589042			115189			113594			666126		

6 *Notes:* MSEM (ML). Random-intercept models. Standardized estimates. Standard errors in parentheses. All
 7 models account for individual-level control variables: gender, socio-economic status, and political interest.

8 Model 4 estimates the indirect effect, although standardized coefficients are not available in Mplus.

9 Significance level: **p* < 0.05; ***p* < 0.01; ****p* < 0.001; + *p* < 0.1.

10 *Sources:* ICCS 2022; TI; V-Dem v14.

11 **9.3. Appendix C: country-specific SEM results**

12 Table C1. Country-specific SEM results for knowledge and norms.

Country	Knowledge			Norms		
	B	SE	<i>p</i>	B	SE	<i>p</i>
Brazil	-0.078	0.020	***	-0.024	0.018	ns
Bulgaria	0.046	0.021	*	-0.076	0.024	**
Chinese Taipei	0.019	0.020	ns	-0.047	0.016	**
Colombia	-0.105	0.020	***	-0.058	0.027	*
Croatia	0.076	0.020	***	-0.060	0.020	**
Cyprus	0.017	0.019	ns	-0.083	0.018	***
Denmark	0.096	0.021	***	-0.036	0.019	ns
Estonia	0.125	0.026	***	0.011	0.021	ns
France	0.028	0.022	ns	-0.030	0.023	ns
Italy	0.045	0.026	ns	-0.058	0.023	*
Latvia	0.077	0.026	**	-0.098	0.021	***
Lithuania	0.100	0.021	***	-0.020	0.021	ns
Malta	0.002	0.024	ns	-0.067	0.017	***
Netherlands	0.079	0.026	**	-0.059	0.025	*
Norway	0.098	0.017	***	0.070	0.015	***
Poland	0.029	0.016	ns	-0.055	0.014	***
Serbia	-0.021	0.021	ns	-0.093	0.022	***
Slovak Republic	0.023	0.021	ns	-0.112	0.019	***
Slovenia	0.046	0.022	*	-0.038	0.017	*
Spain	-0.007	0.022	ns	-0.072	0.020	***
Sweden	0.090	0.024	***	0.009	0.023	ns
Romania	0.037	0.020	ns	-0.084	0.021	***
North Rhine- Westphalia	0.084	0.024	***	-0.001	0.021	ns
Schleswig- Holstein	0.073	0.033	*	-0.014	0.031	ns

13 *Notes:* MG-SEM (MLR). Complex models (students nested in schools). Standardized estimates. Standard
 14 errors in parentheses. All models account for gender, socio-economic status, political interest, and
 15 evaluations. Significance level: **p* < 0.05; ***p* < 0.01; ****p* < 0.001.

16 *Source:* ICCS 2022.

