

Most important International Civic and Citizenship Education Study (ICCS) results for Italy

fabio.alivernini@invalsi.it sara.manganelli@invalsi.it



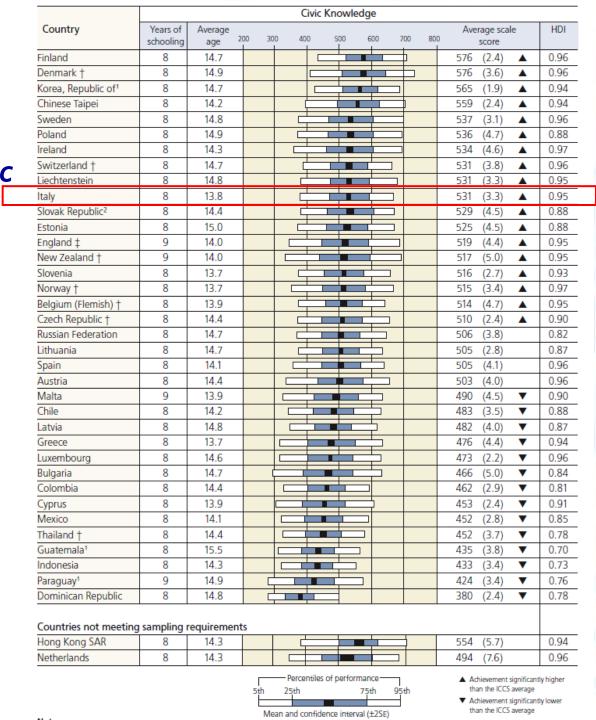
Questions

- What were the most important ICCS results for Italy?
- How were the results analyzed and disseminated?



Country averages for civic knowledge, years of schooling, average age, Human Development Index, and percentile graph

Italian knowledge scale scores were statistically significantly above the ICCS average





Changes in civic content knowledge between 1999 and 2009

	Years of	Mean Scale	Average	Mean Scale	Average	Differences	Differences 1999/2009
Country	Schooling	Score 2009	Age 2009	Score 1999	Age 1999	between 1999 and 2009	-20 -10 0 10 20
Slovenia	9	104 (0.6)	14.7	102 (0.5)	14.8	3 (1.0)	
Finland	8	109 (0.7)	14.7	108 (0.7)	14.8	1 (1.1)	þ
Estonia	8	95 (0.9)	15.0	94 (0.5)	14.7	1 (1.2)	þ
Chile	8	89 (0.7)	14.2	89 (0.6)	14.3	0 (1.1)	
Lithuania	8	94 (0.6)	14.7	94 (0.7)	14.8	0 (1.1)	Score Score
Italy	8	100 (0.7)	13.8	101 (0.7)	13.9	-1 (1.2)	in 1999 in 2009
Latvia	8	91 (0.6)	14.8	92 (0.9)	14.5	-1 (1.2)	higher
Switzerland (German)†	8	94 (1.0)	14.8	95 (0.9)	15.0	-2 (1.5)	
Colombia	8	85 (0.6)	14.4	89 (0.8)	14.6	-4 (1.1)	
Norway †~	9	97 (0.8)	14.7	103 (0.5)	14.8	-5 (1.1)	
Greece	9	102 (0.8)	14.7	109 (0.7)	14.7	-7 (1.3)	
Poland	8	103 (1.0)	14.9	112 (1.3)	15.0	-9 (1.8)	
Slovak Republic ¹	8	97 (1.1)	14.4	107 (0.6)	14.3	-10 (1.4)	
Czech Republic †	8	93 (0.5)	14.4	103 (0.8)	14.4	-10 (1.1)	
Bulgaria	8	88 (0.9)	14.7	99 (1.1)	14.9	-11 (1.5)	
Average		96 (0.0)	14.6	100 (0.0)	14.6	-4 (0.1)	
Countries with differen	nt survey	periods in 19	999				
England ² ‡	9	90 (0.7)	14.0	96 (0.6)	14.7	-6 (1.1)	
Sweden ³	8	98 (0.8)	14.8	97 (0.8)	14.3	0 (1.2)	

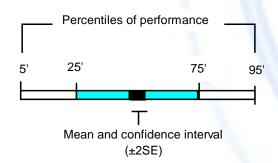
Italian knowledge scale scores were substantially stable over time



Civic knowledge in the Italy's geographic areas

Civic Knowledge

Geographic area	250) 35	0	450	550	650	750	Average scale score	Standard error	
Center								554	(2,8)	•
North East								554	(3,6)	A
North West								534	(4,1)	A
South								510	(2,7)	▼
South & Islands						\Rightarrow		510	(3,3)	•
Italy						\rightarrow		531	(3,3)	



- Achievement significalty higher than the Italy average (p< .001)
- Achievement significalty lower than the Italy average (p< .001)



National averages for students' attitudes toward equal gender rights overall and by gender groups

6			(Sender	Differen	ices for	Attitude	es Towa	rd Gender	Equal	lity				_
Country	All st	tudents		Fem	nales	Ma	ales		erences females)*	30	40	5	i0 6	50 7	70
Austria	\ \	,	Δ	56	(0.3)	47	(0.3)	-9	(0.4)						
Belgium (Flemish) †	52 (0.	.3)	Δ	56	(0.4)	49	(0.3)	-7	(0.4)						
Bulgaria	46 (0.	.3)	▼	49	(0.3)	43	(0.3)	-6	(0.4)						
Chile	51 (0.	.3)	Δ	54	(0.4)	48	(0.3)	-6	(0.4)		\Box				
Chinese Taipei	55 (0.	.2)	A	59	(0.2)	52	(0.2)	-6	(0.3)						
Colombia	· ·	/	∇	51	(0.3)	48	(0.3)	-3	(0.3)				0		
Cyprus	48 (0.	/	∇	53	(0.3)	43	(0.2)	-10	(0.4)						
Czech Republic †	48 (0.	.2) '	∇	51	(0.3)	46	(0.2)	-5	(0.3)			Т]		
Denmark †	54 (0.	.2)	A	58	(0.2)	51	(0.3)	-7	(0.4)						
Dominican Republic	44 (0.	.2) '	▼	45	(0.3)	42	(0.2)	-2	(0.4)						
England ‡	53 (0.	,	A	56	(0.3)	50	(0.4)	-7	(0.4)			ı			
Estonia	\ \	.3) '	∇	51	(0.3)	46	(0.2)	-5	(0.3)		\Box	- 1			
Finland	\ -	.2)	A	58	(0.2)	48	(0.4)	-10	(0.4)				0		
Greece	50 (0.	.3)		55	(0.4)	45	(0.3)	-9	(0.4)		\Box				
Guatemala ¹	49 (0	.3) 1	∇	51	(0.4)	47	(0.4)	-4	(0.4)						
Indonesia	42 (0.	.2) '	▼	44	(0.2)	41	(0.2)	-3	(0.2)			I 🛭			
Ireland	54 (0.	.3)	A	59	(0.3)	50	(0.4)	-8	(0.4)		\blacksquare				
Italy	`		Δ	55	(0.2)	48	(0.3)	-7	(0.3)						
Korea, Republic of		,	Δ	54	(0.2)	48	(0.2)	-6	(0.3)				U		
Latvia	\ -	/	▼	48	(0.3)	44	(0.3)	-4	(0.3)		1	•			
Liechtenstein	53 (0	.7)	A	58	(0.6)	49	(0.9)	-9	(1.0)						
	\		∇	E4	(0.3)	46	(0.3)	-5	(0.4)						
Lithuania	48 (0.	/	_	51	· /		. ,								
Luxembourg	48 (0 52 (0	.2)	Δ	55	(0.2)	48	(0.3)	-7	(0.3)		4			$\overline{}$	
Luxembourg Malta	48 (0. 52 (0. 51 (0.	.2) .	Δ	55 56	(0.2)	47	(0.3)	-8	(0.4)			Ī			
Luxembourg Malta Mexico	48 (0. 52 (0. 51 (0. 45 (0.	(.2) ((.3) ((.1) (△ △ ▼	55 56 47	(0.2) (0.4) (0.2)	47	(0.3)	-8 -4	(0.4)						L
Luxembourg Malta	48 (0.52 (0.51 (0.45 (0.52 (0.	0.2) 2 0.3) 2 0.1) 1	Δ	55 56 47 55	(0.2) (0.4) (0.2) (0.4)	47 44 49	(0.3) (0.1) (0.5)	-8 -4 -6	(0.4) (0.2) (0.6)			Ī			
Luxembourg Malta Mexico	48 (0 52 (0 51 (0 45 (0 52 (0 54 (0	(.2) (.3) (.3) (.4) (.4) (.2) (.2)	△ △ ▼ △	55 56 47 55 57	(0.2) (0.4) (0.2)	47	(0.3)	-8 -4 -6 -7	(0.4) (0.2) (0.6) (0.4)			1 1			
Luxembourg Malta Mexico New Zealand † Norway † Paraguay¹	48 (0. 52 (0. 51 (0. 45 (0. 52 (0. 54 (0. 49 (0.	(.2) (.3) (.3) (.4) (.4) (.2) (.2)	△	55 56 47 55 57 51	(0.2) (0.4) (0.2) (0.4) (0.3) (0.3)	47 44 49	(0.3) (0.1) (0.5)	-8 -4 -6 -7 -4	(0.4) (0.2) (0.6) (0.4) (0.4)			Ī			
Luxembourg Malta Mexico New Zealand † Norway †	48 (0. 52 (0. 51 (0. 45 (0. 52 (0. 54 (0. 49 (0.	(.2) (.3) (.3) (.4) (.4) (.2) (.2)	△ △ ▼ △	55 56 47 55 57	(0.2) (0.4) (0.2) (0.4) (0.3) (0.3) (0.3)	47 44 49 50	(0.3) (0.1) (0.5) (0.3) (0.3) (0.2)	-8 -4 -6 -7	(0.4) (0.2) (0.6) (0.4)			1 1			
Luxembourg Malta Mexico New Zealand † Norway † Paraguay¹	48 (0 52 (0 51 (0 45 (0 52 (0 54 (0 49 (0 48 (0 44 (0	(.2) (.3) (.4) (.4) (.2) (.2) (.3) (.3) (.3)	△ △ ✓ △ ✓ ✓ ✓	55 56 47 55 57 51	(0.2) (0.4) (0.2) (0.4) (0.3) (0.3)	47 44 49 50 46	(0.3) (0.1) (0.5) (0.3) (0.3) (0.2) (0.2)	-8 -4 -6 -7 -4	(0.4) (0.2) (0.6) (0.4) (0.4)			1 1			
Luxembourg Malta Mexico New Zealand † Norway † Paraguay¹ Poland	48 (0 52 (0 51 (0 45 (0 52 (0 54 (0 49 (0 48 (0 44 (0	(.2) (.3) (.4) (.4) (.2) (.2) (.3) (.3) (.3)	△ △ ▼ △ △ ▼ ▼	55 56 47 55 57 51 51 45	(0.2) (0.4) (0.2) (0.4) (0.3) (0.3) (0.3)	47 44 49 50 46 44	(0.3) (0.1) (0.5) (0.3) (0.3) (0.2)	-8 -4 -6 -7 -4 -7	(0.4) (0.2) (0.6) (0.4) (0.4) (0.4)						
Luxembourg Malta Mexico New Zealand † Norway † Paraguay¹ Poland Russian Federation	48 (0 52 (0 51 (0 45 (0 52 (0 54 (0 49 (0 48 (0 48 (0 52 (0	(.2) (.3) (.4) (.4) (.2) (.2) (.3) (.2) (.3) (.2) (.3) (.4) (.4) (.4) (.5) (.5) (.5) (.5) (.5) (.5) (.5) (.5	△ △ ✓ △ ✓ ✓ ✓	55 56 47 55 57 51 51 45 50 56	(0.2) (0.4) (0.2) (0.4) (0.3) (0.3) (0.3) (0.2)	47 44 49 50 46 44 42 46 47	(0.3) (0.1) (0.5) (0.3) (0.3) (0.2) (0.2)	-8 -4 -6 -7 -4 -7 -4 -4 -9	(0.4) (0.2) (0.6) (0.4) (0.4) (0.4) (0.4) (0.3) (0.4) (0.4)						
Luxembourg Malta Mexico New Zealand † Norway † Paraguay¹ Poland Russian Federation Slovak Republic²	48 (0 52 (0 51 (0 45 (0 52 (0 54 (0 49 (0 48 (0 48 (0 52 (0	(2) (2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	△	55 56 47 55 57 51 51 45	(0.2) (0.4) (0.2) (0.4) (0.3) (0.3) (0.3) (0.2) (0.3)	47 44 49 50 46 44 42 46	(0.3) (0.1) (0.5) (0.3) (0.3) (0.2) (0.2) (0.2)	-8 -4 -6 -7 -4 -7 -4 -4	(0.4) (0.2) (0.6) (0.4) (0.4) (0.4) (0.3) (0.4)						
Luxembourg Malta Mexico New Zealand † Norway † Paraguay¹ Poland Russian Federation Slovak Republic² Slovenia	48 (0 52 (0 51 (0 45 (0 52 (0 54 (0 49 (0 48 (0 48 (0 52 (0 54 (0 55 (0) 55 (0) 56 (0) 57 (0) 58 (0) 59 (0) 59 (0) 59 (0) 50 (0) 50 (0) 51 (0) 52 (0) 53 (0) 54 (0) 55 (0) 56 (0) 57 (0) 58 (0) 59 (0) 50 (0) 5	1.2)	△	55 56 47 55 57 51 51 45 50 56	(0.2) (0.4) (0.2) (0.4) (0.3) (0.3) (0.3) (0.3) (0.2) (0.3)	47 44 49 50 46 44 42 46 47	(0.3) (0.1) (0.5) (0.3) (0.3) (0.2) (0.2) (0.2) (0.3) (0.4)	-8 -4 -6 -7 -4 -7 -4 -4 -9	(0.4) (0.2) (0.6) (0.4) (0.4) (0.4) (0.4) (0.3) (0.4) (0.4)						
Luxembourg Malta Mexico New Zealand † Norway † Paraguay¹ Poland Russian Federation Slovak Republic² Slovenia Spain	48 (0 52 (0 51 (0 45 (0 52 (0 54 (0 49 (0 48 (0 48 (0 52 (0 54 (0 55 (0	1.2)	△ △ △ ✓ △ ✓ ✓ ✓ ✓ ✓	55 56 47 55 57 51 51 45 50 56	(0.2) (0.4) (0.2) (0.4) (0.3) (0.3) (0.3) (0.2) (0.3) (0.2) (0.3)	47 44 49 50 46 44 42 46 47 52	(0.3) (0.1) (0.5) (0.3) (0.3) (0.2) (0.2) (0.2) (0.3) (0.4) (0.4)	-8 -4 -6 -7 -4 -7 -4 -4 -9 -5	(0.4) (0.2) (0.6) (0.4) (0.4) (0.4) (0.4) (0.3) (0.4) (0.4) (0.4)						
Luxembourg Malta Mexico New Zealand † Norway † Paraguay¹ Poland Russian Federation Slovak Republic² Slovenia Spain Sweden	48 (0 52 (0 51 (0 45 (0 52 (0 54 (0 49 (0 48 (0 48 (0 52 (0 54 (0 55 (0 55 (0 55 (0 55 (0	1.2)	△ △ △ △ △ ▽ ▽ ▽ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○	55 56 47 55 57 51 51 45 50 56 57	(0.2) (0.4) (0.2) (0.4) (0.3) (0.3) (0.3) (0.2) (0.3) (0.2) (0.3) (0.2)	47 44 49 50 46 44 42 46 47 52 51	(0.3) (0.1) (0.5) (0.3) (0.3) (0.2) (0.2) (0.2) (0.3) (0.4) (0.4)	-8 -4 -6 -7 -4 -7 -4 -9 -5 -8	(0.4) (0.2) (0.6) (0.4) (0.4) (0.4) (0.4) (0.3) (0.4) (0.4) (0.4) (0.4)						

Countries not meeting sampling requirements

		_			
Hong Kong SAR	51 (0.3)	55 (0.3)	49 (0.2)	-6 (0.4)	
Netherlands	51 (0.5)	55 (0.6)	48 (0.5)	-7 (0.5)	

National average

- ▲ More than 3 score points above ICCS average
- △ Significantly above ICCS average
- ▼ More than 3 score points below ICCS average
- Significantly below ICCS average

Notes:

Female average score +/- confidence interval

Male average score +/- confidence interval

On average, students with a score in the range indicated by this color have more than a 50% probability of responding to positive statements about gender equality with:

Disagreement

Agreement



Attitudes toward gender equality in the Italy's geographic areas

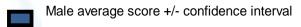
		Ī		Gender D	Differences fo	r Attitude	s To <mark>wa</mark> rd Ge	nder Equalit	y	
Geographic area	All students		Females	Males	Differences (Males- Females)*	30	40	50	60	70
Center	53,1 (0,2)	Δ	56,5 (0,3)	49,9 (0,3)	-6,7					
North East	52,7 (0,2)	Δ	56,6 (0,3)	48,6 (0,2)	-8,0					
North West	51,3 (0,2)	∇	55,4 (0,3)	47,4 (0,3)	-8,0					
South	51,0 (0,2)	∇	53,8 (0,2)	48,4 (0,3)	-5,4					
South & Islands	51,2 (0,2)	∇	55,2 (0,2)	47,7 (0,4)	-7,5					
Italy	51,7 (0,2)		55,4 (0,3)	48,4 (0,3)	-7,0					
ICCS average	50 (0,0)		53 (0,0)	47 (0,1)	-6				1	

Geographic area average

Significantly above the Italy average (p< .05)

Significantly below the Italy average (p< .05)

Female average score +/- confidence interval



^{*} Differences significant at p < 0.001 in **bold.**



National averages for students' attitudes toward equal rights for immigrants

Country	Gende	er Differences fo	r Attitudes Tov	vard Equal Rights for In	nmigrants
Country	All students	Females	Males	Differences (males–females)* 30	40 50 60 70
Austria	48 (0.3) ▽	50 (0.4)	46 (0.4)	-4 (0.5)	
Belgium (Flemish) †	46 (0.3) ▼	47 (0.3)	44 (0.3)	-3 (0.4)	
Bulgaria	52 (0.2) △	53 (0.3)	51 (0.3)	-2 (0.3)	
Chile	54 (0.2)	55 (0.2)	53 (0.3)	-2 (0.3)	
Chinese Taipei	56 (0.2)	56 (0.2)	55 (0.2)	-2 (0.3)	
Colombia	54 (0.2)	55 (0.2)	54 (0.2)	0 (0.3)	
Cyprus	49 (0.3) ▽	52 (0.3)	47 (0.3)	-5 (0.4)	
Czech Republic †	48 (0.2) ▽	50 (0.2)	47 (0.2)	-3 (0.3)	10
Denmark †	48 (0.3) ▽	50 (0.3)	47 (0.4)	-2 (0.4)	
Dominican Republic	51 (0.4) △	52 (0.3)	51 (0.5)	-1 (0.4)	0
England ‡	46 (0.3) ▼	47 (0.3)	45 (0.5)	-2 (0.5)	
Estonia	48 (0.2) ▽	49 (0.2)	47 (0.3)	-2 (0.3)	
Finland	48 (0.3) ▽	51 (0.3)	45 (0.4)	-5 (0.5)	
Greece	51 (0.2) A	53 (0.3)	49 (0.3)	-3 (0.4)	
Guatemala ¹	54 (0.2)	54 (0.3)	54 (0.3)	0 (0.3)	
Indonesia	47 (0.1) ▼	47 (0.1)	47 (0.2)	0 (0.2)	
Ireland	50 (0.2)	52 (0.3)	48 (0.3)	-3 (0.4)	
Italy	48 (0.3) ▽	50 (0.3)	47 (0.3)	-2 (0.3)	
Korea, Republic of ¹	49 (0.1) ▽	50 (0.2)	49 (0.2)	-1 (0.3)	
Latvia	47 (0.2) ▼	47 (0.3)	46 (0.3)	-1 (0.4)	
Liechtenstein	48 (0.5) ▽	49 (0.8)	47 (1.0)	-2 (1.4)	
Lithuania	51 (0.2) A	52 (0.3)	50 (0.2)	-2 (0.3)	
Luxembourg	52 (0.2) △	53 (0.2)	51 (0.2)	-2 (0.4)	I
Malta	49 (0.3) ▽	50 (0.5)	47 (0.3)	-3 (0.6)	
Mexico	55 (0.2)	55 (0.3)	54 (0.3)	-2 (0.3)	
New Zealand †	51 (0.3) A	52 (0.3)	50 (0.5)	-2 (0.6)	
Norway †	50 (0.3)	52 (0.3)	49 (0.4)	-3 (0.5)	
Paraguay¹	53 (0.2)	53 (0.3)	53 (0.3)	0 (0.4)	0
Poland	50 (0.2)	51 (0.3)	49 (0.3)	-3 (0.3)	
Russian Federation	49 (0.2) ▽	50 (0.2)	48 (0.3)	-2 (0.3)	■II
Slovak Republic ²	50 (0.3)	51 (0.3)	49 (0.4)	-2 (0.4)	
Slovenia	50 (0.3)	52 (0.3)	48 (0.4)	-4 (0.4)	
Spain	51 (0.3) A	51 (0.4)	50 (0.4)	-1 (0.4)	•
Sweden	52 (0.4) △	54 (0.4)	49 (0.5)	-4 (0.5)	
Switzerland †	49 (0.3) ▽	50 (0.3)	47 (0.4)	-4 (0.5)	• •
Thailand †	48 (0.1) ▽	48 (0.2)	48 (0.2)	0 (0.3)	0
ICCS average	50 (0.0)	51 (0.1)	49 (0.1)	-2 (0.1)	

Countries not meeting sampling requirements

Hong Kong SAR	52 (0.3)	54 (0.4)	53 (0.3)	-1 (0.4)		
Netherlands	47 (0.3)	47 (0.4)	44 (0.6)	-3 (0.7)		

▲ More than 3 score points above ICCS average

△ Significantly above ICCS average

▼ More than 3 score points below ICCS average

۷	a	u	0	n	aı	a	۷	eı	ra	C

On average, students with a score in the range indicated by this color have more than a 50% probability of responding to positive statements about equal rights for immigrants with:

Female average score +/- confidence interval

Male average score +/- confidence interval

Disagreement Agreement

Notes:



Attitudes toward equal rights for immigrants in the Italy's geographic areas

			Ge	ender Differer	nces for Attit	udes Tow	vard Equal Ri	ghts for Im	migrants	
Geographic area	All students		Females	Males	Differences (Males- Females)*	30	40	50	60	70
Center	48,7 (0,5)	Δ	49,4 (0,7)	48,0 (0,8)	-1,4					
North East	47,0 (0,5)	∇	48,6 (0,6)	45,3 (0,8)	-3,3					
North West	45,7 (0,6)	∇	46,9 (0,5)	44,6 (0,9)	-2,3					
South	50,3 (0,4)	\triangle	51,4 (0,5)	49,2 (0,6)	-2,2					
South & Islands	50,5 (0,5)	Δ	52,5 (0,7)	48,8 (0,6)	-3,7					
Italy	48,4 (0,3)		49,7 (0,3)	47,3 (0,3)	-2,4					_ \
ICCS average	50 (0,0)		51 (0,1)	49 (0,1)	-2					

Geographic area average

Significantly above the Italy average (p< .01)

Significantly below the Italy average (p< .01)

Female average score +/- confidence interval

Male average score +/- confidence interval

^{*} Differences significant at p < 0.001 in **bold.**



Student endorsement of basic NVAISI democratic values

The percentages of agreement were significantly above the ICCS average for the majority of the items:

- Everyone should always have the right to express their opinions freely;
- All people should have their social and political rights respected;
- People should always be free to criticize the government publicly;
- All citizens should have the right to elect their leaders freely;
- People should be able to protest if they believe a law is unfair;
- Political protest should never be violent.



Student endorsement of basic NVALSI democratic values

But for two items the percent of agreements were significantly below the ICCS average:

- Political leaders should not be allowed to give government jobs to their family members
- No company or government should be allowed to own all newspapers in a country

Dissemination



- The ICCS framework has been translated into Italian and it has been published to the web (http://www.invalsi.it/invalsi/ri/iccs2009.php?page=iccs2009_it_00a)
- The ICCS Italian National report has been sent to all participating schools and it has been published to the web (http://www.invalsi.it/invalsi/istituto.php?page=rapporti)
- A meeting has been organized in Rome to discuss the Italian results



An example of in-depth analysis of the Italian data:

Is there a relationship between openness in classroom discussion and students' knowledge in civic and citizenship education in Italy?

Aim of the study



The aim of this study was to explore, for the Italian ICCS 2009 data, the relationships between

the presence of an open climate for classroom discussion and

student civic knowledge

The study took into consideration, as control variables, aspects of the students' background and of the school context.

Civic Knowledge



- Students' Civic Knowledge encompasses a wide range of topics, including the knowledge and understanding of the basic elements of citizenship as well as those of traditional civic education
- The development of civic knowledge is influenced by activities and experiences that take place within the contexts of home, school, the classroom, and the wider community
- It was measured using a 80-item cognitive test concerning with civic society and systems, civic principles, civic participation, and civic identities

Openness in classroom discussion



- It encompasses the students' perceptions of the atmosphere for expressing opinions in class during discussions of political and social issues, and involves students' relations with peers in the school setting as well as with teachers
- It is a positive predictor of civic knowledge and it has a positive correlation to students' expectations to vote and to their perceptions of social and political alienation
- It was measured using a six item scale in which students were asked to rate the frequency with which certain events occurred during regular lessons (e.g., Teachers encourage students to make up their own minds; Students bring up current political events for discussion in class).



Data is based on:

- the answers of 3366 students in 8th grade(51.9% boys) (test and questionnaire)
- the answers of the Italian principals to the school questionnaire

Variables



- The dependent variable of the analysis was the Rasch-scaled score for overall Civic Knowledge
- The independent variables (openness in classroom discussion and control variables) were the average scale scores from school and student questionnaires

Measurements were taken at a student level and at a school level.



Control variables used in the analysis - Students' background (students level)

VARIABLE	DESCRIPTION
Immigrant background	Without immigrant background: the student and his/her parents were born in Italy With immigrant background: the student and/or his/her parents were not born in Italy
Home Literacy	Students' reports about the number of books they had at home
Parental Occupational Status	Students' reports about their parents occupations transformed into a score on the International Socioeconomic Index (SEI) of occupational status. When data were provided for two parents, the highest ISEI score was used.
Parental Educational Level	Students' reports about their parents educational level (ISCED Level 1-6). When data were provided for two parents, the highest ISCED Level was used.
Gender	The gender of the students

Control variables used in the analysis-School context (Students and Principals)

VARIABLE	DESCRIPTION
Value of students' Participation at school	Students' perceptions about the importance of student participation in school (e.g. students participation in how school are run can make schools better).
Students' influence at school	Students' perceptions about to what extent their opinions are taken into account when decisions are being made, concerning what is taught in class, the timetable (e.g. most of my teachers really listen to what I have to say)
Resources in Local Community	<u>Principals'</u> reports about the availability of resources in the local community (e.g. language schools, public library, cinema).

Analysis



- The multilevel analysis was conducted using two levels:
 - 1) the home/student level
 - 2) the school level (principals and students)
- In considering the explorative purpose of the study only main effects were analyzed and interaction effects were ignored.
- We used the strategy of randomly splitting the data file in two:
 - the first random sample was used to develop a satisfying model
 - the second one to check the results found.
- Software: HLM



The process of analysis was carried out in three stages

- We analyzed a model with no explanatory/predictor variables (intercept-only model) to estimate the school intra-class correlation
- 2) We analyzed the posited model
- 3) We assessed the final model developed at step 2 using the second random sample of the data file.

Results: Stage 1



INVALS

Stage 1: Intercept only model

Estimate of the school intra-class correlation

• The intra-class correlation was 0.16, meaning that roughly 16% of the variance is attributable to school traits.

Results: Stage 2

Stage 2:
Analysis of the posited model



Stage 2: Analysis of the posited model

Students perform significantly better (p < 0.05) if:

- There is an open classroom climate for discussions
- Students' participation is considered important
- Students do not have great influence on decision making at school
- They don't have an immigrant background
- They have many books at home
- They are female
- Their parents' occupational status is higher
- Their parents' educational level is higher

Results: Stage 3

Stage 3:

Test of the final model with the second random sample

Index	Regression Coefficients
	Student Level School Level
Immigrant background	-33,1**
Home Literacy	11,4**
Parental Occupational Status	0,9**
Parental Educational Level	5*
Gender	17,4**
Openness in Class Discussion	1,7*
Value of Student Participation	2,4*
Students' Influence at School	-4,5**
Resources in Local Community	N.S.

Empty cell= the effect was not modeled

N.S. = not statistically significant association (p<0.05)

^{* =} statistically significant association (p<0.05)

^{** =} statistically significant association (p<0.01)

The final model





Gender



Home literacy





Immigrant Background



Parental Occupational Status



Parental Educational Level



Openness in Class Discussion



Value of Students Participation



Students' influence at school





Student level

School level



Resources in Local Community

Discussion



- The results showed that roughly 16% of the variance of the scores for civic knowledge is attributable to school traits.
- As hypothesized, students have significantly higher civic knowledge scores if there is a climate suitable for open classroom discussion in their school.
- The student level control variable with the largest effect was immigrant background.

Discussion



- These results are consistent with previous research findings on the relationship between the presence of a school environment based on democratic principles and the learning of these same democratic principles
- The present study extends previous research results by indicating that a democratic classroom climate is able to predict civic knowledge even if one controls for a large set of variables at different levels.



