

The Making of Civic Virtues: A School-Based Experiment in Three Countries

S. Briole (CEEM-PSE), M. Gurgand (PSE-JPAL), É. Maurin (PSE-JPAL), S. McNally (Surrey, LSE), J. Ruiz-Valenzuela (Univ. Barcelona, IEB, LSE) & D. Santín (Univ. Complutense)

V Workshop Evaluación Políticas Públicas (UV-Valencia)

18 y 19 de abril, 2024

Introduction

- ▶ Building civic sense of the youth = one of the main objectives of most public education systems
- ▶ Ability of teachers to transmit basic civic skills very important since **problems of student incivility and violence have become endemic** in public schools in many countries (OECD, 2019).
- ▶ **These behaviours are problematic in several dimensions:**
 - ▶ Harm the learning and well-being of the students who are the victims.
 - ▶ Lead to disciplinary sanctions: increase in behavioral problems of the sanctioned students themselves
 - ▶ Deterioration of teachers' working conditions and disaffection
 - ▶ Many aspects of school behavior are predictive of later civic attitudes

Introduction

- ▶ Faced with these multi-faceted challenges, a broad movement of revitalization of civic education has emerged
- ▶ However, still much to learn about how to best teach civics in diverse and polarized societies
- ▶ **What do we do in this paper?**
 - ▶ We train teachers to implement a civic education program based on student empowerment and concrete civic-oriented projects.
 - ▶ Show that it is possible to foster social engagement, tolerance and respect for collective rules among young adolescents
 - ▶ Results in line with the hypothesis that schools are among the places where children can best develop their civic sense by learning to cooperate

Introduction

- ▶ This paper: large-scale experiment implemented in 3 European countries: France, Greece, Spain
- ▶ *Active Citizenship* (ACT): promote youth civic behaviours through innovative pedagogy for citizenship education in middle schools (8th/9th grades)
- ▶ In most European countries, citizenship education focuses on civic knowledge (law, political institutions, etc.) and is based on vertical teaching
- ▶ ACT program encourages a participative pedagogy based on student empowerment and implementation of concrete citizenship projects

ACT program

- ▶ Two distinct phases:
 1. **Preparation phase:** 3 mandatory lesson plans
 - ▶ Introduce main objectives and scope of citizenship projects
 - ▶ Have students work in small groups (4-5 students) to design citizenship project proposals and present it to the class
 - ▶ Have students **vote** for one project to be implemented in the whole class
 2. **Implementation phase:** more flexible
 - ▶ Teacher works with the class to co-construct an action plan
 - ▶ Projects are then **led by students and guided by the teacher**
- ▶ **Pilot:** During the 2017-18 school year in 3 schools per country
- ▶ **Implementation:** Full program implemented at scale and evaluated during the 2018-19 school year (\approx October-April)

Citizenship projects: some examples

- ▶ Project examples:
 - ▶ Collecting food at a supermarket to distribute to homeless people
 - ▶ Organize activities for the elderly in a retirement home
 - ▶ A theater performance related to discrimination issues in a primary school
 - ▶ Production of posters aiming to reduce Islamophobia in their school

Citizenship projects

Table 1: Citizenship Projects

	(1) All	(2) France	(3) Greece	(4) Spain
<i>Project topics</i>				
Discrimination	0.64 (0.48)	0.56 (0.50)	0.71 (0.46)	0.69 (0.47)
Social inclusion	0.53 (0.50)	0.50 (0.51)	0.71 (0.46)	0.47 (0.50)
Cultural diversity	0.29 (0.46)	0.18 (0.39)	0.29 (0.46)	0.41 (0.50)
<i>Targeted population</i>				
Elderly	0.15 (0.35)	0.12 (0.33)	0.12 (0.34)	0.18 (0.39)
Homeless	0.12 (0.33)	0.14 (0.35)	0.17 (0.38)	0.08 (0.28)
Migrants	0.26 (0.44)	0.14 (0.35)	0.42 (0.50)	0.31 (0.47)
Women	0.19 (0.39)	0.14 (0.35)	0.08 (0.28)	0.29 (0.46)
LGBT	0.11 (0.32)	0.10 (0.30)	0.04 (0.20)	0.16 (0.37)
Disabled	0.26 (0.44)	0.34 (0.48)	0.29 (0.46)	0.16 (0.37)
Other	0.25 (0.44)	0.30 (0.46)	0.17 (0.38)	0.24 (0.43)
No specific group	0.20 (0.40)	0.28 (0.45)	0.12 (0.34)	0.16 (0.37)
<i>General orientation of the project</i>				
School oriented project	0.56 (0.50)	0.38 (0.49)	0.55 (0.51)	0.70 (0.46)
Out-of-school oriented project	0.42 (0.49)	0.56 (0.50)	0.34 (0.48)	0.36 (0.49)
<i>N</i>	123	50	24	49

Note: This table shows the percentage of citizenship projects implemented in the treatment group that relate to each of the three topics covered by the ACT intervention, the population targeted by these projects and the share of in-school and out-of-school oriented projects. One project may correspond to multiple topics and/or targeted population. Standard deviations are in parentheses.

Timeline

- ▶ Feb - April 2018: recruitment letter sent to schools
- ▶ Before June 2018: schools express interest in participating in ACT (only volunteer schools and teachers enter into experiment!)
- ▶ Between July - September 2018: public authorities collect names of teachers and students
- ▶ Prior to randomisation: baseline surveys
- ▶ September - October 2018: randomisation:
 - ▶ In total, 270 schools sampled (7,869 students and 386 teachers), 136 randomly assigned to T and 134 to C
 - ▶ Stratification on school characteristics (region, enrollment, social composition)
- ▶ November 2018: Teacher training
- ▶ December 2018 - May 2019: Implementation
- ▶ June 2019: Endline surveys

Data and outcomes

- ▶ We collected survey and administrative data in the 270 schools (7,869 students) involved in the program to evaluate its impact
- ▶ We build 5 main indexes, captured pre and post intervention:
 - ▶ **School behaviours:** absenteeism, late arrivals, school discipline problems (exclusions and smaller sanctions) (admin data France)
 - ▶ **Academic achievement:** teacher grades in all subjects (admin data France)
 - ▶ **Social interactions:** friendship network heterophily (surveys, all countries)
 - ▶ **Civic Attitudes:** social engagement, tolerance and support for equal rights (surveys, all countries)
 - ▶ **Democratic Participation:** interest in politics, political self-efficacy and participation to the March 2019 climate strike (surveys, all countries)
 - ▶ **Teaching practices index:** captures extent to which teachers use student-centered methods

Main model

- ▶ For each outcome, we evaluated the impact of **being assigned to the program** with the following model:

$$Y_{isr} = \alpha + \beta T_s + \gamma X_{is} + \delta_r + \epsilon_{isr} \quad (1)$$

- ▶ i : student (or teacher); s : school; r : strata
- ▶ T_s = treatment assignment dummy
- ▶ X_{is} = set of controls. Included controls are selected among all student and school-level variables through a Lasso regression (Belloni et al. (2014))
- ▶ δ_r = strata fixed effects
- ▶ ϵ_{isr} = standard errors, clustered at the treatment (school) level

Balancing checks and attrition

- ▶ Treatment and control groups are balanced after randomization on variables exhaustively available
- ▶ Attrition of 31% and 23% at endline for student and teacher survey, respectively
 - ▶ No differential attrition between T and C [table](#)
- ▶ We checked that treatment and control groups are still balanced at endline
 - ▶ Teacher characteristics [table](#)
 - ▶ Student characteristics [table](#)
- ▶ Final working sample: 108 T and 109 C schools, 323 volunteer teachers, 6211 listed students (3194 T and 3017 C).

Treatment effect on program implementation

	(1) C	(2) T-C	(3) S.E.	(4) p-val	(5) N
<i>Teachers</i>					
Participation in ACT training	0.024	0.949***	0.026	0.000	247
Actual implementation of ACT project	0.040	0.902***	0.029	0.000	245
Teacher Pedagogy index	0.000	0.353***	0.128	0.006	254
<i>Students</i>					
Student participation to a citizenship project	0.301	0.427***	0.024	0.000	4133

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Treatment effect on school behaviors & acad achievement

	(1) C	(2) T-C	(3) S.E.	(4) Unadj. p-val	(5) Adj. p-val	(6) N
School Behavior	0.000	0.268***	0.089	0.003	-	2251
Absences	0.000	0.249**	0.104	0.017	0.034	2227
Punctuality	0.000	0.188*	0.100	0.059	0.079	2227
Exclusions	0.000	0.190***	0.062	0.002	0.009	2186
Less serious disciplinary sanctions	0.000	0.047	0.092	0.612	0.612	2241
Av. Grade	0.000	0.126***	0.040	0.002	-	2251
Subjects without volunteer teachers	0.000	0.101**	0.041	0.014	-	2251
Subjects without volunteer/HG teachers	0.000	0.098**	0.042	0.019	-	2251

Note: C1: mean in the control group. C2: coefficient from the regression of the row variable on a treatment dummy controlling for strata fixed effects, set of controls selected through a Lasso procedure. C3: standard errors clustered at the school. C4: unadjusted p-value. C5: p-value adjusted for false discovery rate. C6: sample size (individuals who are observed at baseline and for whom the row variable is measured at endline). Each line is a separate regression. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

- ▶ Estimated effect on school behaviour similar to average effect in 37 RCTs aimed at reducing school exclusions and suspensions
- ▶ girls-boys gap represents 21% of a SD for the School Behaviour index and 20% for average grades
- ▶ the high-low SES gap represents 20% of a SD and 26% of a SD.
- ▶ Potential to close a substantial fraction of these gaps

Treatment effect on social interactions

- ▶ Comparison of friendship networks at endline and baseline
- ▶ No significant effect on the number of socially similar friends
- ▶ number of friends with at least one difference increases by about 0.11 (i.e., an 8% increase), and those with at least two differences by about 0.17 (i.e., a 18% increase).

	(1) C	(2) T-C	(3) S.E.	(4) Unadj. p-val	(5) Adj. p-val	(6) N
Number of friends	3.650	0.194	0.130	0.134	-	4299
Nb of friends with 0 difference	1.374	0.052	0.058	0.378	-	4298
Nb of friends with 1 difference or more	2.276	0.173*	0.095	0.068	-	4299
Nb of friends with 2 differences or more	0.626	0.113**	0.044	0.011	-	4299
Nb of friends with 3 differences	0.066	0.008	0.011	0.487	-	4299
Friendship Heterophily index	0.000	0.099**	0.043	0.022	-	4299
Nb of friends of different gender	0.892	0.126*	0.056	0.025	0.076	4299
Nb of friends of different geo. origin	0.543	0.071	0.042	0.088	0.132	4299
Nb of friends of different social origin	1.534	0.093	0.066	0.154	0.154	4299

Treatment effect on civic outcomes

	(1) C	(2) T-C	(3) S.E.	(4) Unadj. p-val	(5) Adj. p-val	(6) N
Civic Attitudes index	0.000	0.134***	0.036	0.000	-	4244
Social engagement	0.000	0.090*	0.041	0.028	0.084	4244
Tolerance	0.000	0.025	0.031	0.414	0.414	4119
Equal rights	0.000	0.059	0.033	0.074	0.111	4110
Democratic Participation index	0.000	0.084**	0.033	0.011	-	4294
Political self-efficacy	0.000	0.092***	0.029	0.002	0.005	4241
Interest in political life	0.000	0.003	0.032	0.923	0.923	4294
Participation in Climate strike	0.000	0.068	0.039	0.081	0.121	4244
<i>Panel B: Without projects narrowly related to Social Engagement</i>						
Civic Attitudes - projects unrelated to Social Engagement	0.000	0.116***	0.044	0.009	-	3469
Democratic Participation - projects unrelated to Social Engagement	0.000	0.080**	0.036	0.028	-	3509

Note: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

- ▶ To benchmark these effect sizes:
 - ▶ The girl-boy gap represents 21% of SD for Civic Attitudes, 4.4% of a SD for Democratic Participation
 - ▶ The high-low SES gap is respectively 15% of a SD, 30% of a SD

Heterogeneity of Program Impact

- ▶ In the PAP, we hypothesized that the program impact could be heterogeneous, depending on the country and student baseline characteristics (civic skills, gender, family background)
- ▶ We complement this approach with a data-driven approach based on ML techniques [Go](#)
- ▶ Two important heterogeneity dimensions:
 1. Teacher school involvement [Go](#)
 2. Student baseline civic skills [Go](#)
- ▶ In both cases, impact much larger on students/teachers with better civic outcomes at baseline
 - ▶ Ability to accumulate civic skills in adolescence may depend on civic skills accumulated earlier, during childhood (Heckman et al, 2007)

Discussion

- ▶ We show that a low-cost educational intervention, based on participative pedagogy, can have significant positive impact on student civic attitudes and behaviours
- ▶ While the program improves average outcomes, it also contributes to increasing inequality between students
 - ▶ Complementarities in the production function of civic skills (as in Cunha and Heckman, 2007)
 - ▶ It remains difficult, in our societies, to mobilize, through collective projects, students who are least attached to common values.
- ▶ Key role played by teachers: Treatment effects are much larger when the program is implemented by the most involved teachers (as measured in participation in various schools councils).
 - ▶ The success of a less vertical and more interactive pedagogy depends crucially on teacher involvement
- ▶ More research needed to assess the effect of such programs applied much more systematically in the early grades

Appendix - sample size

Table 2: Sample size

	(1) All	(2) France	(3) Greece	(4) Spain
<i>Number of schools</i>				
Total	217	75	47	95
Treated schools	108	37	23	48
Control schools	109	38	24	47
<i>Number of volunteer teachers on initial lists</i>				
Total	323	123	67	133
Teachers in Treated school	161	60	35	66
Teachers in Control schools	162	63	32	67
<i>Number of students on initial lists</i>				
Total	6211	2269	1808	2134
Students in Treated school	3194	1202	884	1108
Students in Control schools	3017	1067	924	1026

Student Civic Attitudes

1. ***Social engagement***

- (i) Civic engagement at school over last school year: tutoring, participation to school newspaper
- (ii) Civic engagement outside of school over last school year: volunteering in a humanitarian association or in an association aimed at helping the community or mentoring younger kids
- (iii) Self-Report Altruism scale (Rushton et al, 1981): scale designed to measure pro-social behaviours in daily life (ex: share lunch, help classmate with homework, free cat-sitting, etc.)

2. ***Tolerance***

- ▶ Extent to which the respondent prefers to spend time with people who have similar views about religion (1) at school and (2) outside of school

3. ***Civic values***

- ▶ Support for equal rights for all citizens (gender, migration). Ex: "Men and women should have the same rights in every way."

Student Democratic Participation

1. ***Political Self-Efficacy***

- ▶ Self-confidence in discussing political issues. Ex: "When political issues or problems are being discussed, I usually have something to say"

2. ***Interest in Political Life***

- (i) Interest in political news: information practices and discussion with relatives
- (i) Future (intended) political participation: intention to vote, join a political party, be candidate for an election, etc.

3. ***Participation to Climate Strike***

- ▶ Dummy for participation to the Global Strike for Climate Change on March 15, 2019 (*Youth for Climate*)

Student Civic Behaviours

1. ***Truancy***

- ▶ Nb of unjustified absences over the school year

2. ***Punctuality***

- ▶ Nb of late arrivals over the school year

3. ***Exclusions***

- ▶ Nb of exclusions from school for disciplinary motives

4. ***Smaller disciplinary sanctions***

- ▶ Nb of smaller disciplinary sanctions: disciplinary warning, hours of detention, etc.

[back](#)

Balancing checks - randomization

Table 3: Balancing checks - randomization

	(1) T-C
Teacher Pedagogy Index	-0.034 (0.107)
Female	-0.098 (0.048)
Experience	-0.723 (0.788)
Seniority	-0.030 (0.650)
School responsibilities	-0.071 (0.094)
Engagement out of school	0.123 (0.113)
Years teaching citizenship	-0.353 (0.898)
Studied Citizenship init. training	0.010 (0.048)
Studied Citizenship prof dpmt	0.029 (0.047)
Citizen project over last 2 years	0.023 (0.047)
Nb teachers initial list	-0.053 (0.119)

mean coefficients; sd in parentheses

* $p < 0.10$. ** $p < 0.05$. *** $p < 0.01$

Balancing checks on responding students

Table 4: Balancing checks on the respondents - students

	(1) T-C
Age	-0.084 (0.096)
Female	0.004 (0.018)
High SES	-0.031 (0.025)
Nb siblings	-0.179 (0.080)
Grade 8	0.141 (0.095)

mean coefficients; sd in parentheses
* $p < 0.10$. ** $p < 0.05$. *** $p < 0.01$

[back](#)

Table 5: Differential attrition rates across treatment groups

	T-C
Student endline survey	-0.006 (0.025)
Teacher endline survey	0.026 (0.035)

Note: Standard errors in parentheses.

* $p < 0.10$. ** $p < 0.05$

back

Balancing checks on responding teachers

	(1) T - C
Teacher Pedagogy Index	-0.069 (0.126)
Female	-0.048 (0.063)
Experience	-0.895 (0.871)
Seniority	0.249 (0.810)
School responsibilities	-0.123 (0.116)
Engagement out of school	0.030 (0.138)
Years teaching citizenship	0.283 (1.052)
Studied Citizenship init. training	0.035 (0.056)
Studied Citizenship prof dpmt	-0.008 (0.055)
Citizen project over last 2 years	0.004 (0.057)

mean coefficients; sd in parentheses

* $p < 0.10$. ** $p < 0.05$. *** $p < 0.01$

Balancing checks on responding students

	(1) T - C
Student answered baseline survey	-0.022 (0.011)
Civic Attitudes Index	-0.013 (0.035)
Democratic Participation Index	-0.060 (0.042)
Age	0.004 (0.044)
Female	-0.012 (0.015)
European origin	-0.035 (0.016)
High SES	-0.019 (0.018)
Nb siblings	-0.062 (0.050)
Represent	0.009 (0.012)

mean coefficients; sd in parentheses

* $p < 0.10$. ** $p < 0.05$. *** $p < 0.01$

Program impact - robustness check

	(1) Main indexes	(2) Sub-indexes
Civic Attitudes Index	0.075* (0.043)	
Altruism		0.092 (0.046)
Tolerance		0.009 (0.032)
Civic values		0.007 (0.034)
Democratic Participation Index	0.046* (0.028)	
Political Self efficacy		0.048 (0.029)
Interest in political life		-0.040 (0.030)
Participation to Climate strike		0.058 (0.032)
Civic Behaviours Index*	0.287*** (0.077)	
Absences		0.291*** (0.085)
Punctuality		0.154 (0.092)
Exclusions		0.218*** (0.059)
Smaller sanctions		0.008 (0.104)

mean coefficients; sd in parentheses

* $p < 0.10$. ** $p < 0.05$. *** $p < 0.01$. Adjusted p-values used for sub-indexes.

Heterogeneity: Machine Learning Approach

- ▶ null hypothesis that $\beta = 0$ rejected in all cases (significant heterogeneity in the effect of the treatment on all dimensions).
- ▶ Identify the baseline variables most often used by the causal forest procedure to grow trees and predict individual treatment effects

Table 6: Generalized Random Forests: Tests for Heterogeneity

	(1) Citizen. project	(2) School Behaviour	(3) Av. Grade	(4) Civic Attitudes	(5) Democratic Part.	(6) Friend. Heterophily
β coefficient	3.32 (0.39)	1.64 (0.54)	2.53 (0.36)	0.99 (0.46)	1.09 (0.38)	1.56 (0.46)
<i>Most important variables:</i>						
1	Teacher resp	Teacher resp	Teacher resp	Soc. Engag.	Teacher resp	Friend. Heteroph.
2	Soc. Engag.	Av. Grade	Sport Grade	Equal rights	Pol. Self-eff	Friends diff SES
3	Pol. Self-eff	Sport Grade	Grade Hist-geo	Teacher resp	Int. in pol	Teacher resp
4	Int. in pol	Pol. Self-eff	Int. in pol	Relig. tol.	Soc. Engag.	Friends diff geo

Note: This table shows the results of the test for heterogeneity in treatment effect proposed by [?], which seeks to fit the Conditional Average Treatment Effect (CATE) as a linear function of the out-of-bag causal forest estimates. The first row of the table shows the main β coefficient of this regression and its standard errors (in parentheses), clustered at the school level. The next rows show the four most important variables determining the heterogeneity of treatment effects, by order of importance.

Heterogeneity: baseline student engagement

	(1)	(2)	(3)	(4)	(5)
	C	T-C	S.E.	p-val	N
<i>High baseline Social Engagement</i>					
Participation to a citizenship project	0.356	0.434	0.030	0.000	2058
School Behaviours	0.000	0.213	0.095	0.024	985
Av. Grade	0.000	0.141	0.056	0.012	985
Civic Attitudes	0.000	0.194	0.045	0.000	2114
Democratic Participation	0.000	0.122	0.043	0.005	2135
Friendship Heterophily	0.000	0.095	0.050	0.059	2136
<i>Low baseline Social Engagement</i>					
Participation to a citizenship project	0.243	0.458	0.028	0.000	2049
School Behaviours	0.000	0.172	0.075	0.021	996
Av. Grade	0.000	0.129	0.045	0.004	996
Civic Attitudes	0.000	0.063	0.050	0.206	2104
Democratic Participation	0.000	0.044	0.038	0.254	2132
Friendship Heterophily	0.000	0.104	0.047	0.027	2136

Heterogeneity: baseline teacher engagement

	(1)	(2)	(3)	(4)	(5)
	C	T-C	S.E.	p-val	N
<i>High involvement</i>					
Participation to a citizenship project	0.280	0.441	0.041	0.000	1999
School Behaviour	0.000	0.395	0.125	0.002	1045
Av. Grade	0.000	0.128	0.048	0.007	1045
Civic Attitudes	0.000	0.168	0.048	0.001	2065
Democratic Participation	0.000	0.142	0.048	0.003	2087
Friendship Heterophily	0.000	0.216	0.055	0.000	2088
<i>Low involvement</i>					
Participation to a citizenship project	0.319	0.443	0.050	0.000	2025
School Behaviour	0.000	0.028	0.134	0.834	1206
Av. Grade	0.000	0.184	0.059	0.002	1206
Civic Attitudes	0.000	0.033	0.070	0.636	2070
Democratic Participation	0.000	0.002	0.074	0.978	2098
Friendship Heterophily	0.000	-0.029	0.112	0.797	2102
