

Supplemental Appendix

Inclusive Teaching: Spotting Social Isolation in the Classroom

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A Additional Tables and Figures

Table A.1. Comparison our sample and nationally representative sample

Variable	Sample Invalsi	Collected Sample	Difference	Norm. Diff.
Female	0.497 (0.500)	0.483 (0.500)	0.013 [0.798]	0.020
Immigrant	0.149 (0.356)	0.153 (0.360)	0.002 [0.953]	-0.009
Mother has university degree	0.235 (0.424)	0.243 (0.429)	-0.015 [0.739]	-0.013
Mother has university degree	0.333 (0.471)	0.318 (0.466)	-0.000 [0.993]	0.022
Std. Test Ita	198.361 (48.483)	205.231 (49.511)	-8.332 [0.124]	-0.099
Std. Test Math	192.375 (38.721)	202.623 (36.874)	-10.862 [0.012]	-0.192
Observations	15893	2536		

Notes: The national sample is taken from the open dataset for grade 2 students in year 2022 (the same as our cohort) available on the INVALSI website. Standard deviations are in parentheses, p-values in brackets.

Table A.2. Balance Table - Restricted to being present at endline

	(1) N	(2) Control Mean	(3) Treatment Mean	(4) Difference (T-C)	(5) SE	(6) p-value	(7) Norm. Diff.
Panel A: Student Demographics							
Female	2219	0.488	0.489	0.002	0.018	0.913	0.001
Immigrant	2219	0.138	0.154	0.023	0.027	0.406	0.031
Age in months	2172	106.512	106.252	-0.202	0.147	0.176	-0.047
Any learning difficulty/disability	2219	0.199	0.197	-0.001	0.019	0.972	-0.003
Not autonomous during the survey	2219	0.008	0.010	0.001	0.005	0.898	0.009
Absent at baseline	2219	0.124	0.117	-0.023	0.030	0.451	-0.015
New student in the school	2219	0.016	0.032	0.018*	0.010	0.081	0.075
Father has a university degree	1975	0.286	0.210	-0.071	0.066	0.281	-0.125
Mother has a university degree	1994	0.350	0.293	-0.057	0.066	0.393	-0.088
Panel B: Social Isolation							
Out-Degree (Binary - Reversed)	1936	0.027	0.022	-0.009	0.008	0.235	-0.023
In-Degree (Binary - Reversed)	1936	0.129	0.132	-0.005	0.018	0.797	0.007
Total-Degree (Binary - Reversed)	1936	0.148	0.144	-0.015	0.021	0.481	-0.009
Panel C: Social Inclusion							
Out-Degree (Continuous)	2165	0.041	0.020	0.042	0.111	0.711	-0.016
In-Degree (Continuous)	2165	0.034	0.028	0.035	0.075	0.639	-0.004
Total-Degree (Continuous)	2165	0.043	0.030	0.045	0.105	0.673	-0.010
Panel D: Prosocial Games							
Probability of cooperating	1935	0.481	0.499	0.020	0.028	0.476	0.025
Fraction of endowment donated	1936	0.224	0.187	-0.042**	0.020	0.039	-0.092
Panel E: Socioemotional Well-being							
Mental Health Index	1933	0.001	-0.027	-0.040	0.045	0.387	-0.019
Belonging to school Index	1935	0.033	-0.012	-0.013	0.043	0.770	-0.033
Perception of Teacher Index	1935	0.004	0.082	0.063	0.141	0.658	0.054
Panel F: Cognitive Measures							
Std. Raven score	1936	0.006	-0.052	-0.029	0.055	0.600	-0.042
Std. Test Score Italian (Invalsi)	1967	0.021	-0.030	-0.013	0.125	0.917	-0.037
Std. Test Score Math (Invalsi)	1946	0.026	-0.104	-0.123	0.120	0.312	-0.095
Panel G: Classroom Characteristics:							
Classroom Size	135	19.152	19.594	0.418	0.736	0.572	0.099
Immigrant Share	135	0.151	0.164	0.021	0.026	0.416	0.081
Panel H: Teacher Characteristics:							
Female Teacher	163	0.987	0.977	-0.017	0.022	0.463	-0.052
Teaches Math	153	0.397	0.325	-0.097	0.087	0.271	-0.106
Teaches Italian	153	0.589	0.525	-0.050	0.075	0.511	-0.091
Fixed Term	162	0.921	0.860	-0.057	0.045	0.207	-0.137
Full time	162	0.934	0.930	-0.004	0.037	0.913	-0.011
Age	159	51.447	50.807	-0.221	1.692	0.897	-0.048
Years of experience	160	21.189	20.453	0.344	1.746	0.845	-0.048
Has university degree	156	0.493	0.383	-0.134	0.084	0.119	-0.158
Eye test score	153	23.274	23.875	0.555	0.538	0.309	0.124

Notes: The table presents the randomization balance at baseline when the sample is restricted to be at endline. Social inclusion outcomes, cognitive test scores and survey measures are standardized to have a zero mean and a unit standard deviation for the control group. The Difference (T-C), standard errors (SE) and P-values of the equality test are obtained by controlling for randomization strata and clustering standard errors at the school level (unit of randomization). Normalized differences are calculated following Imbens and Wooldridge (2009), and represent scale-free measure of the difference in distributions.

Table A.3. Treatment Effects on Antisocial Behaviors (Ethnic Reference)

	Antisocial Behaviours Ethnic Reference	
	(1) Probability of Cancelling	(2) Fraction of endowment used
Treatment	-0.090*** (0.029)	-0.050*** (0.017)
Control Mean	0.64	0.30
Observations	2217	2217
Wild bootstrapped p-values	0.010	0.018

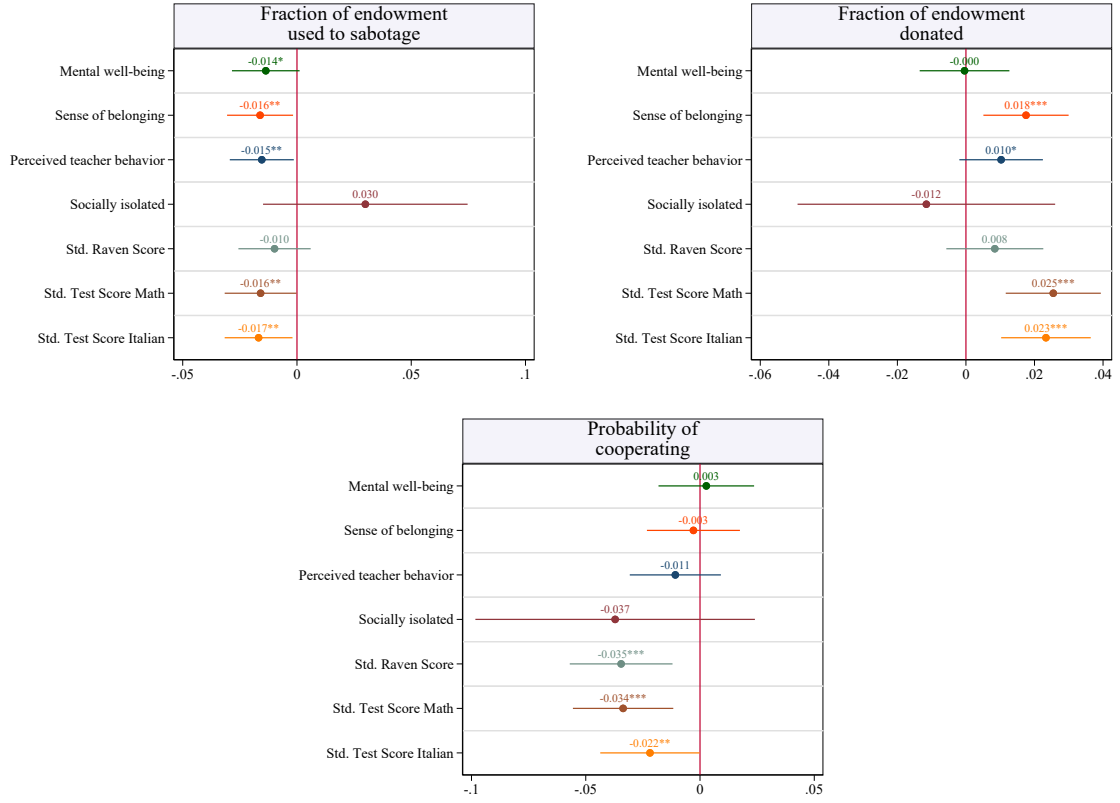
Notes: The table reports the estimated treatment effects on antisocial behavior, measured using the decisions in the sabotage game with ethnic reference. The dependent variable in column 1 is the binary indicator that takes the value 1 if the child chooses to cancel her opponent's correct answers and zero otherwise; in column 2 is the fraction of sabotage endowment used (out of 5 tokens) for canceling. Children were informed that their opponent might have foreign-born parents. Regressions (OLS) include strata fixed effects (FE), enumerator FE, the share of immigrants in the class, Raven's score, standardized test scores, gender, immigrant status, parental education, age in months, binary variables identifying students with a reported disability or learning disorder, students who were not autonomous during the survey data collection, students with a special teacher support, students who were absent at baseline or new in the school at endline, class size, binary indicators identifying whether the teacher is a math, Italian, or other subject teacher, as well as their gender, age, years of experience, level of education, eye test score, and binary indicators for holding a full-time or fixed-term contract. Standard errors are in parentheses and clustered at the school level (unit of randomization). The last row reports wild cluster bootstrap p-values calculated following Cameron et al. (2008).

Table A.4. Treatment effects on simulated differences in classroom payoffs

	(1) Payoff	(2) Gini	(3) Min. Payoff	(4) Max. Payoff
<i>Panel A: Ideal World</i>				
Treatment	-0.006 (0.118)	-0.002 (0.003)	-0.022 (0.022)	-0.280 (0.328)
Control Mean	11.60	0.25	5.08	21.91
Observations	135	135	135	135
Wild bootstrapped p-values	0.962	0.370	0.340	0.408
<i>Panel B: Actual World</i>				
Treatment	0.367* (0.193)	-0.026*** (0.008)	0.718*** (0.256)	-0.115 (0.384)
Control Mean	9.05	0.28	2.75	18.03
Observations	135	135	135	135
Wild bootstrapped p-values	0.090	0.004	0.014	0.810
<i>Panel C: Actual World (Ethnic Reference)</i>				
Treatment	0.349* (0.186)	-0.018** (0.007)	0.565** (0.234)	0.128 (0.362)
Control Mean	9.44	0.27	3.17	18.52
Observations	135	135	135	135
Wild bootstrapped p-values	0.076	0.020	0.034	0.744

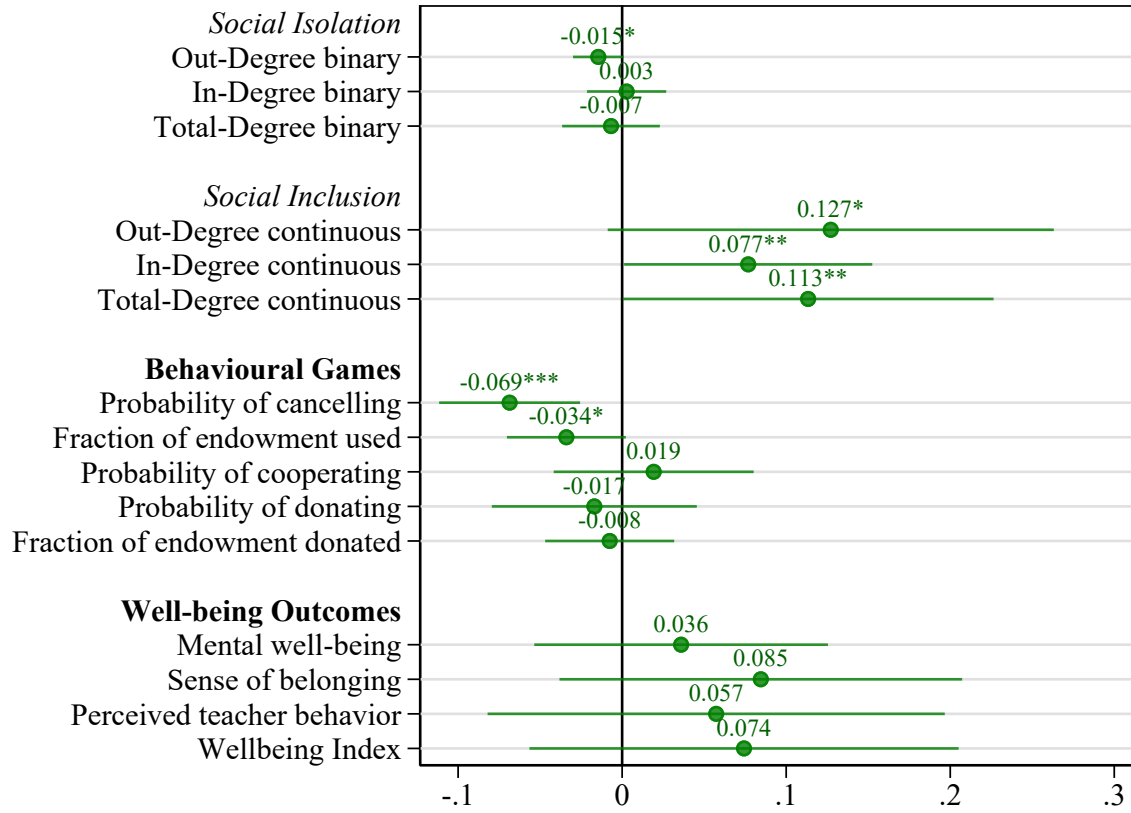
Notes: This table reports OLS estimates of the Figure 4. The dependent variables in columns (1) to (4) are respectively the average simulated payoff, Gini coefficient, minimum and maximum simulated payoff of the classroom. Regressions (OLS) include strata fixed effects (FE), enumerator FE, the share of immigrants in the class, Raven's score, standardized test scores, gender, parental education, age in months, binary variables identifying students with a reported disability or learning disorder, students who were not autonomous during the survey data collection, students with a special teacher support, students who were absent at baseline or new in the school at endline, class size, binary indicators identifying whether the teacher is a math, Italian, or other subject teacher, as well as their gender, age, years of experience, level of education, eye test score, and binary indicators for holding a full-time or fixed-term contract. Since the regressions are conducted at the class level, individual-level controls are averaged at the class level. Standard errors are in parentheses and clustered at the school level (unit of randomization). The last row reports wild cluster bootstrap p-values calculated following Cameron et al. (2008).

Figure A.1. Predictive validity of the incentivized measures of pro and anti social behavior- Full endline sample



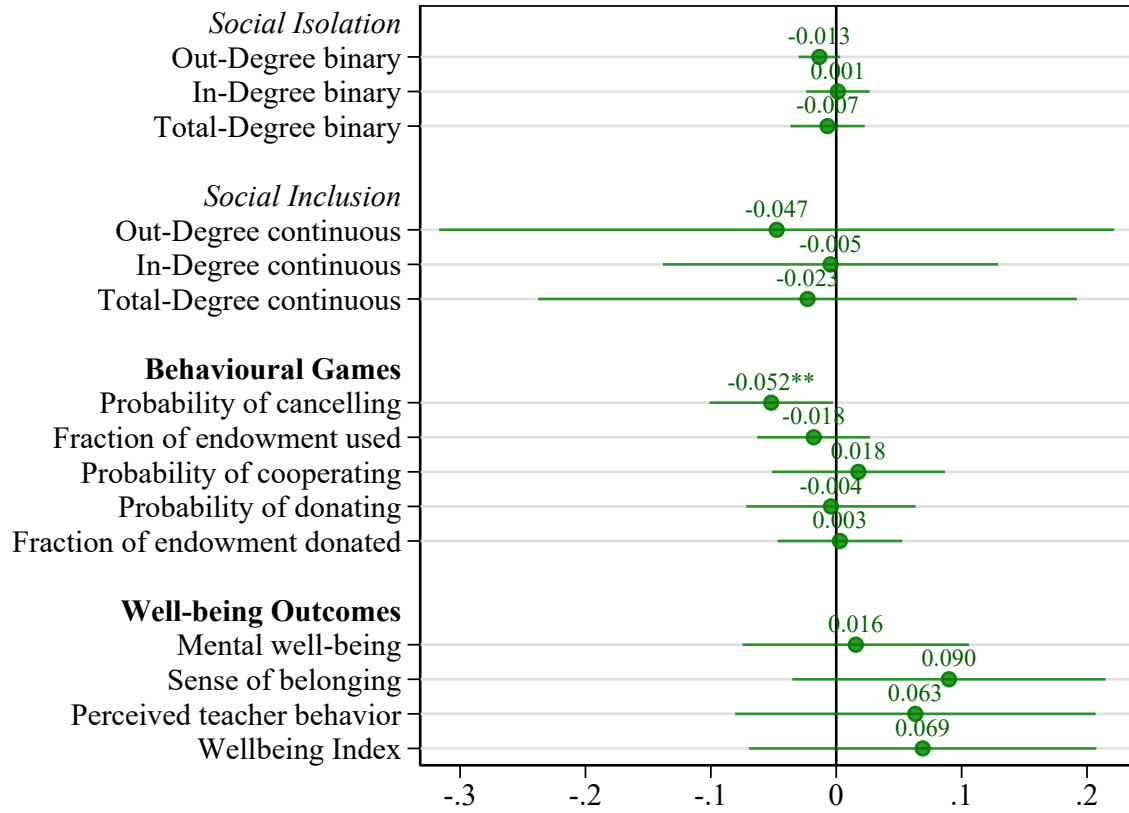
Notes: The figure depicts the predictive power of sabotage, cooperation and donation games, using Raven's scores, standardized test scores, social isolation, mental well-being, sense of belonging, and perception of teacher indices. The sample includes students surveyed at endline and part of the control group. The first panel presents correlations for the fraction of endowment used to sabotage the opponent, the second panel presents correlations for the donation decision, and the third panel presents the correlations for the cooperative decision. Estimates are obtained by regressing the respective decision on each variable shown. 95% confidence intervals are obtained via robust inference.

Figure A.2. Estimated treatment effects with basic controls



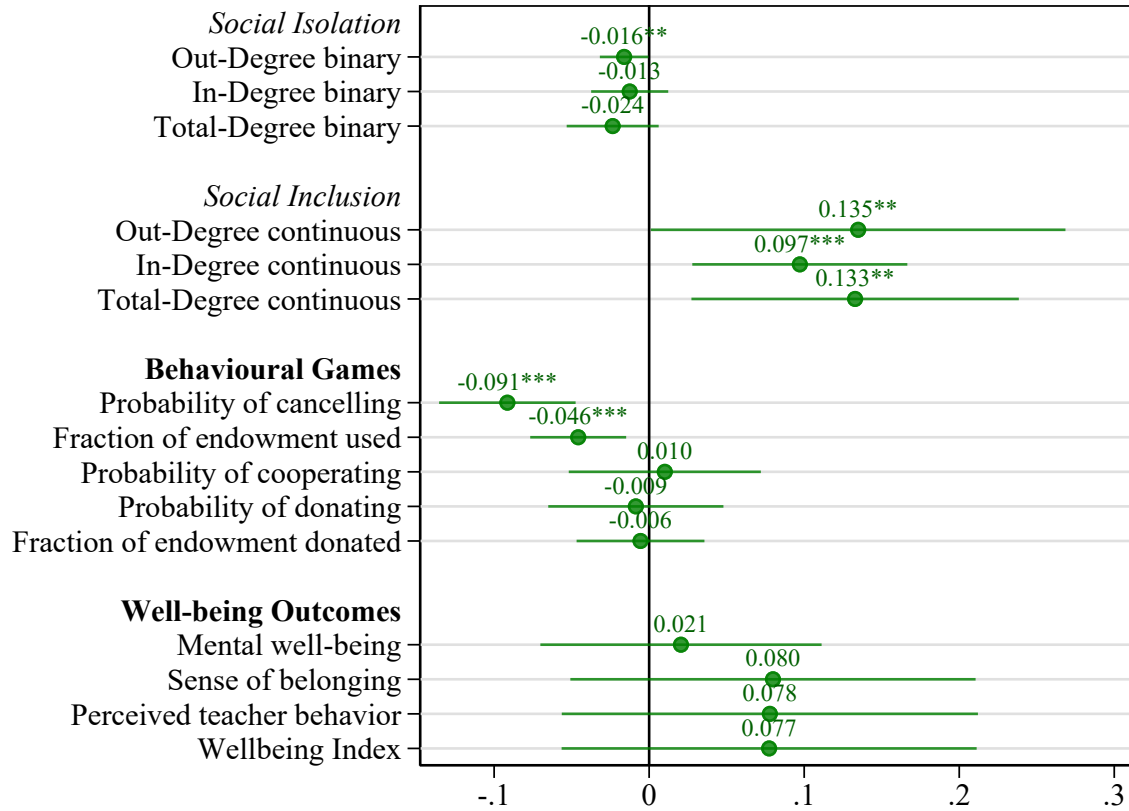
Notes: The figure reports the estimated treatment effects on the main outcomes. Regressions (OLS) include strata FE, enumerator FE, class size and the share of immigrants in the class. 95% confidence intervals are calculated via standard errors clustered at the school level (unit of randomization).

Figure A.3. Results with Strata fixed effects, but no controls



Notes: The figure reports the estimated treatment effects on the main outcomes. Regressions (OLS) include strata FE. 95% confidence intervals are calculated via standard errors clustered at the school level (unit of randomization).

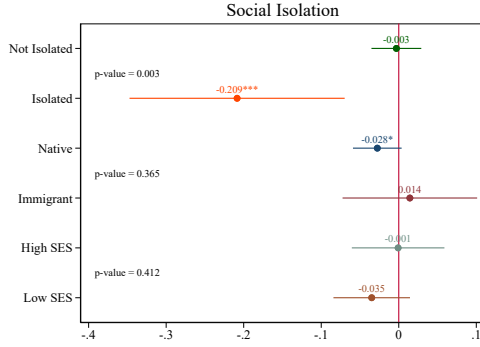
Figure A.4. Estimated treatment effects with Inverse Probability Weighting



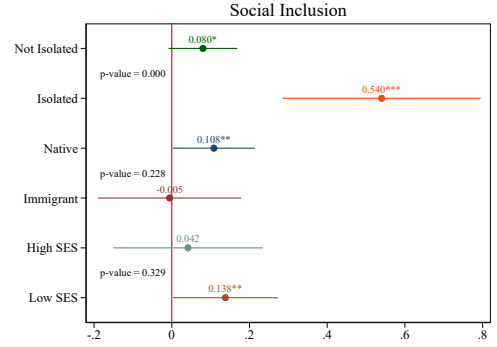
Notes: The figure reports Weighted Least Square (WLS) of the treatment on the main outcomes. The weights are computed as the inverse of the predicted probability of being in the endline sample, estimated with a logit model that includes: strata FE, enumerator FE, the value of the outcome collected at baseline (when collected), the share of immigrants in the class, Raven's score, standardized test scores, gender, immigrant status, parental education, age in months, binary variables identifying students with a reported disability or learning disorder, students with a special teacher support, students who were absent at baseline, class size, binary indicators identifying whether the teacher is a math, Italian, or other subject teacher, as well as their gender, age, years of experience, level of education, eye test score, and binary indicators for holding a full-time or fixed-term contract. The WLS model includes the same controls used in the logit model, a binary indicator for new students present only at endline and a binary indicator for students who were not autonomous during the survey data collection at endline. 95% confidence intervals are calculated via standard errors clustered at the school level (unit of randomization).

Figure A.5. Heterogeneous Treatment Effects

(a) Social Isolation



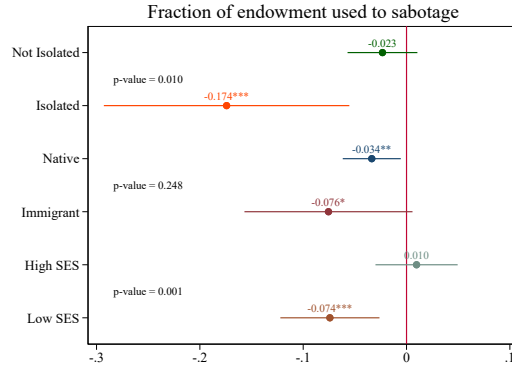
(b) Social Inclusion



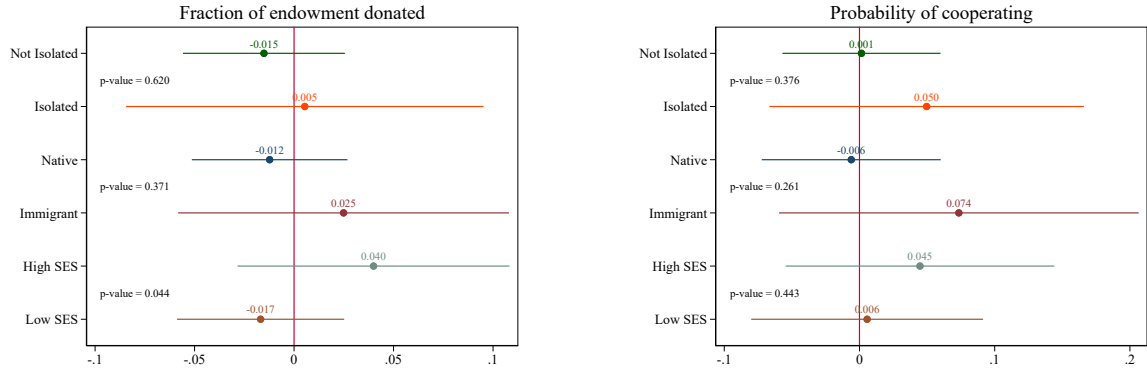
Notes: The figure shows the treatment effects on the outcome reported on top of each panel. The dependent variable in Panel (a) is a binary indicator that takes value 1 if a student is not nominated or does not nominate anyone in the classroom and 0 otherwise (Total Degree ties - Binary). The dependent variable in Panel (b) is the normalized number of Total-Degree ties (In-Degree + Out-Degree) standardized relative to the control group. Each coefficient is from a different regression for subgroups of students based on social isolation status, native vs. migrant, and low vs. high SES. High SES is a binary indicator equal to one if at least one parent has a university degree. We include the 95 percent confidence interval calculated with standard errors clustered at the school level (unit of randomization). We report the p-value testing whether the treatment effect is different across subgroups in a fully saturated regression. Regressions (OLS) include strata fixed effects (FE), enumerator FE, the share of immigrants in the class, Raven's score, standardized test scores, gender, immigrant status and parental education controls (when relevant in the model), age in months, binary variables identifying students with a reported disability or learning disorder, students who were not autonomous during the survey data collection, students with a special teacher support, students who were absent at baseline or new in the school at endline, class size, binary indicators identifying whether the teacher is a math, Italian, or other subject teacher, as well as their gender, age, years of experience, level of education, eye test score, and binary indicators for holding a full-time or fixed-term contract.

Figure A.6. Heterogeneous Treatment Effects

(a) Antisocial Behaviors

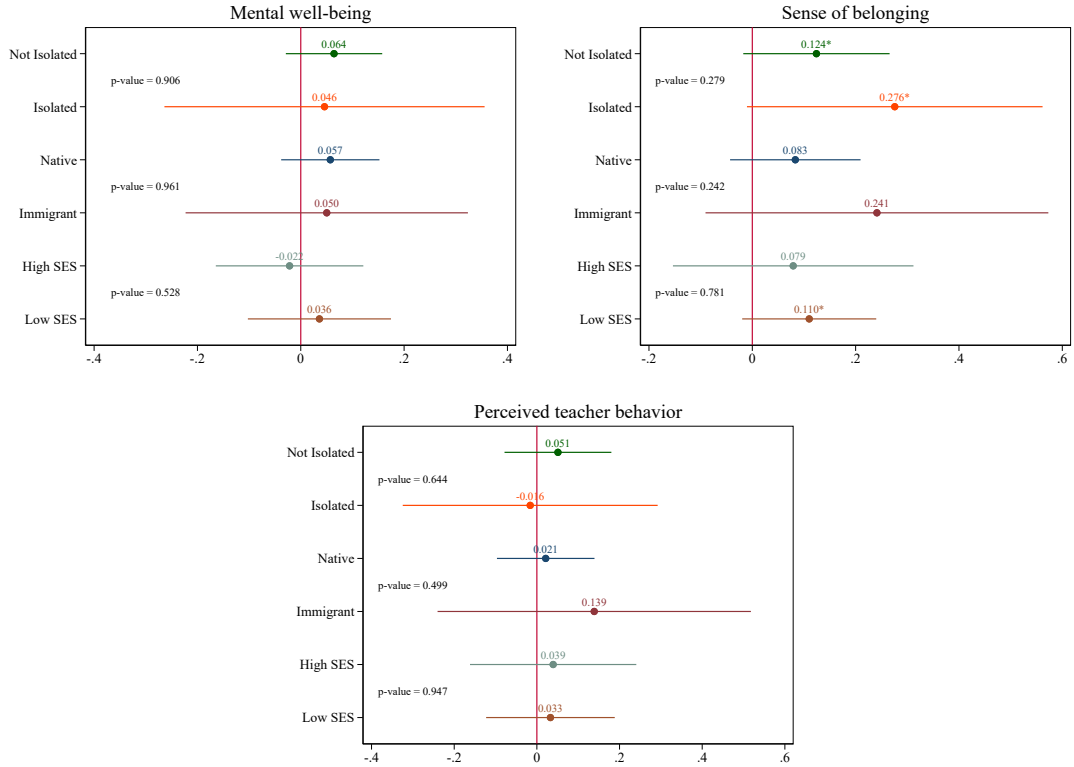


(b) Prosocial Behaviors



Notes: The figure shows the treatment effects on the outcome reported on top of each panel. The dependent variable in Panel (a) is fraction of sabotage endowment used (out of 5 tokens) for canceling; the dependent variables in Panel (b) are respectively: the fraction of tokens donated out of 4 tokens (left graph) and a binary variable that takes the value 1 if the child chooses the cooperative action in the prisoner's dilemma game (right graph). Each coefficient is from a different regression for subgroups of students based on social isolation status, native vs. migrant, and low vs. high SES. High SES is a binary indicator equal to one if at least one parent has a university degree. We include the 95 percent confidence interval calculated with standard errors clustered at the school level (unit of randomization). We report the p-value testing whether the treatment effect is different across subgroups in a fully saturated regression. Regressions (OLS) include strata fixed effects (FE), enumerator FE, the share of immigrants in the class, Raven's score, standardized test scores, gender, immigrant status and parental education controls (when relevant in the model), age in months, binary variables identifying students with a reported disability or learning disorder, students who were not autonomous during the survey data collection, students with a special teacher support, students who were absent at baseline or new in the school at endline, class size, binary indicators identifying whether the teacher is a math, Italian, or other subject teacher, as well as their gender, age, years of experience, level of education, eye test score, and binary indicators for holding a full-time or fixed-term contract.

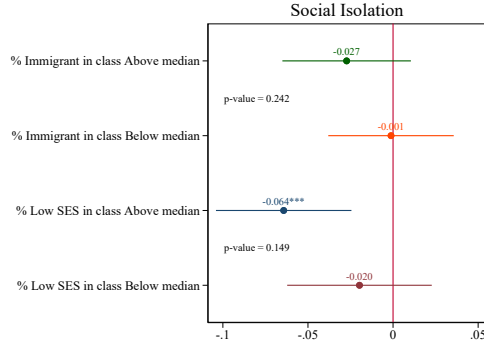
Figure A.7. Heterogeneous Treatment Effects
Well-being Outcomes



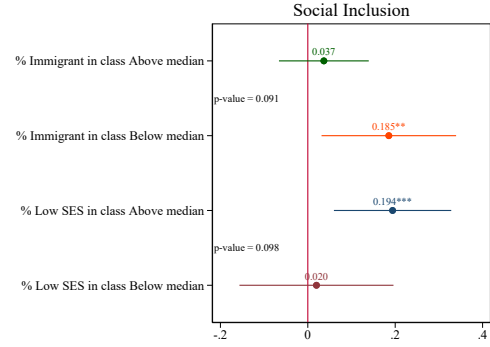
Notes: The figure shows the treatment effects on the outcome reported on top of each panel. Each coefficient is from a different regression for subgroups of students based on social isolation status, native vs. migrant, and low vs. high SES. High SES is a binary indicator equal to one if at least one parent has a university degree. We include the 95 percent confidence interval calculated with standard errors clustered at the school level (unit of randomization). We report the p-value testing whether the treatment effect is different across subgroups in a fully saturated regression. Regressions (OLS) include strata fixed effects (FE), enumerator FE, the share of immigrants in the class, Raven's score, standardized test scores, gender, immigrant status and parental education controls (when relevant in the model), age in months, binary variables identifying students with a reported disability or learning disorder, students who were not autonomous during the survey data collection, students with a special teacher support, students who were absent at baseline or new in the school at endline, class size, binary indicators identifying whether the teacher is a math, Italian, or other subject teacher, as well as their gender, age, years of experience, level of education, eye test score, and binary indicators for holding a full-time or fixed-term contract.

Figure A.8. Heterogeneous Treatment Effects

(a) Social Isolation



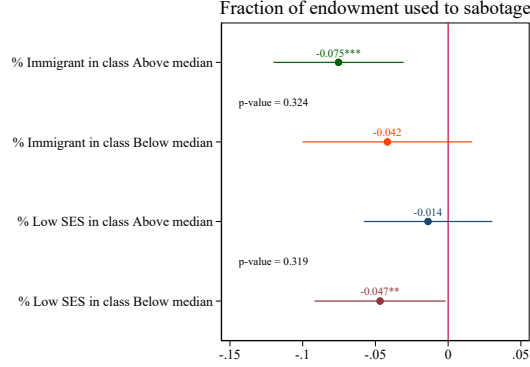
(b) Social Inclusion



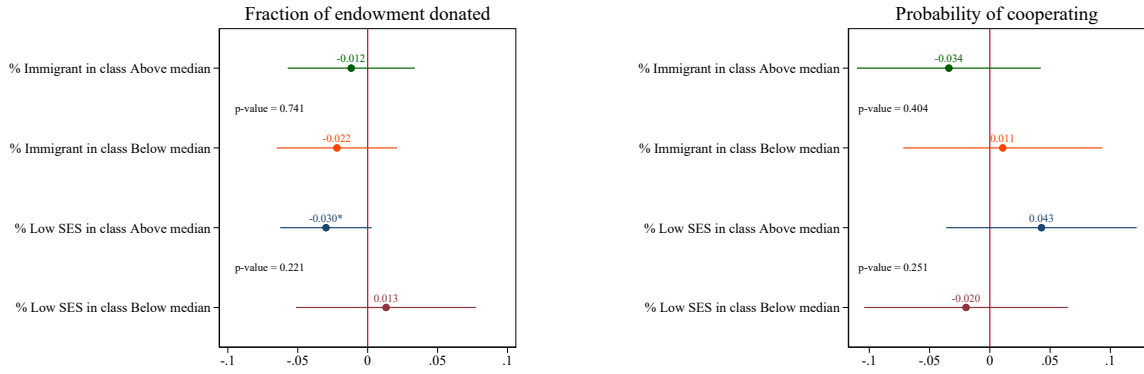
Notes: The figure shows the treatment effects on the outcome reported on top of each panel. The dependent variable in Panel (a) is a binary indicator that takes value 1 if a student is not nominated or does not nominate anyone in the classroom and 0 otherwise (Total Degree ties - Binary). The dependent variable in Panel (b) is the normalized number of Total-Degree ties (In-Degree + Out-Degree) standardized relative to the control group. Each coefficient is from a different regression for subgroups of students based on the above/below median percentage of immigrant classmates and the above/below median percentage of low SES in the class. We include the 95 percent confidence interval calculated with standard errors clustered at the school level (unit of randomization). We report the p-value testing whether the treatment effect is different across subgroups in a fully saturated regression. Regressions (OLS) include strata fixed effects (FE), enumerator FE, the share of immigrants in the class, Raven's score, standardized test scores, gender, immigrant status and parental education controls (when relevant in the model), age in months, binary variables identifying students with a reported disability or learning disorder, students who were not autonomous during the survey data collection, students with a special teacher support, students who were absent at baseline or new in the school at endline, class size, binary indicators identifying whether the teacher is a math, Italian, or other subject teacher, as well as their gender, age, years of experience, level of education, eye test score, and binary indicators for holding a full-time or fixed-term contract.

Figure A.9. Heterogeneous Treatment Effects

(a) Antisocial Behaviors

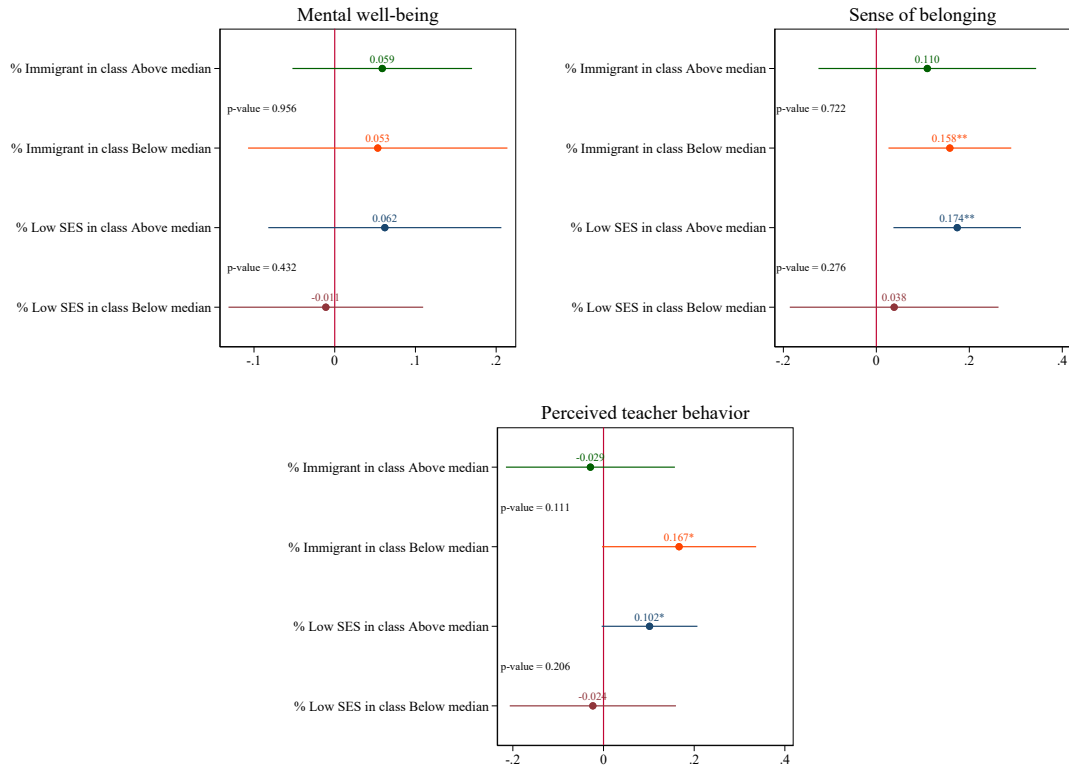


(b) Prosocial Behaviors



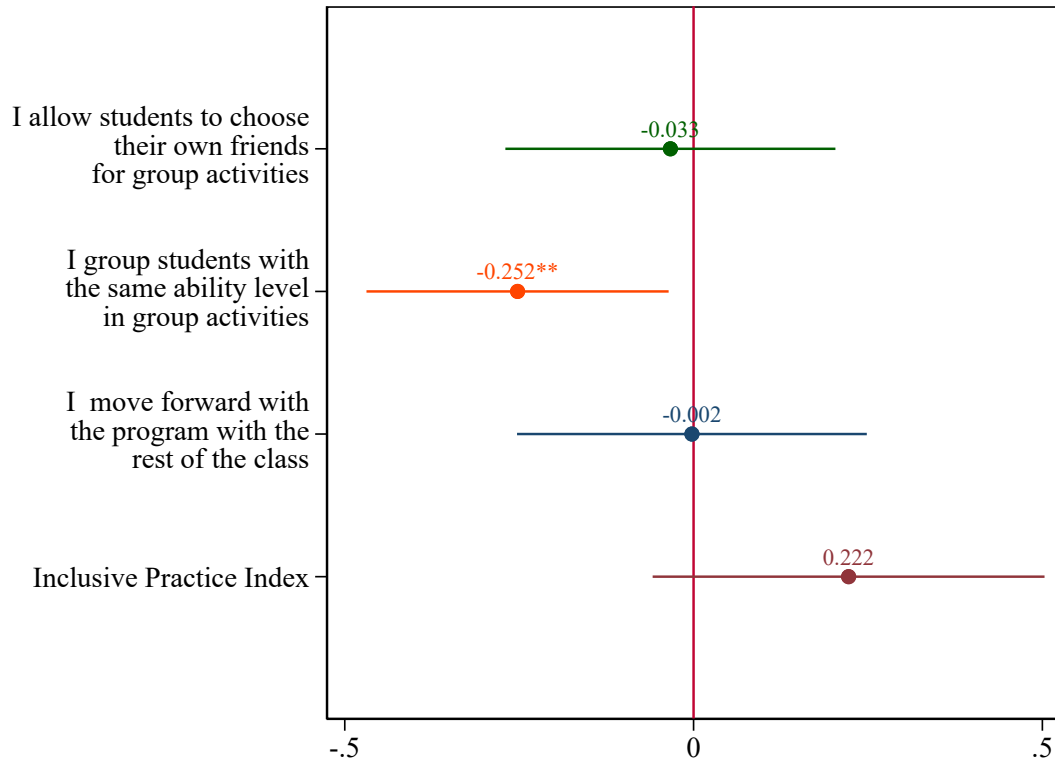
Notes: The figure shows the treatment effects on the outcome reported on top of each panel. The dependent variable in Panel (a) is fraction of sabotage endowment used (out of 5 tokens) for canceling; the dependent variables in Panel (b) are respectively: the fraction of tokens donated out of 4 tokens (left graph) and a binary variable that takes the value 1 if the child chooses the cooperative action in the prisoner's dilemma game (right graph). Each coefficient is from a different regression for subgroups of students based on the above/below median percentage of immigrant classmates and the above/below median percentage of low SES in the class. We include the 95 percent confidence interval calculated with standard errors clustered at the school level (unit of randomization). We report the p-value testing whether the treatment effect is different across subgroups in a fully saturated regression. Regressions (OLS) include strata fixed effects (FE), enumerator FE, the share of immigrants in the class, Raven's score, standardized test scores, gender, immigrant status and parental education controls (when relevant in the model), age in months, binary variables identifying students with a reported disability or learning disorder, students who were not autonomous during the survey data collection, students with a special teacher support, students who were absent at baseline or new in the school at endline, class size, binary indicators identifying whether the teacher is a math, Italian, or other subject teacher, as well as their gender, age, years of experience, level of education, eye test score, and binary indicators for holding a full-time or fixed-term contract.

Figure A.10. Heterogeneous Treatment Effects
Well-being Outcomes



Notes: The figure shows the treatment effects on the outcome reported on top of each panel. Each coefficient is from a different regression for subgroups of students based on the above/below median percentage of immigrant classmates and the above/below median percentage of low SES in the class. We include the 95 percent confidence interval calculated with standard errors clustered at the school level (unit of randomization). We report the p-value testing whether the treatment effect is different across subgroups in a fully saturated regression. Regressions (OLS) include strata fixed effects (FE), enumerator FE, the share of immigrants in the class, Raven's score, standardized test scores, gender, immigrant status and parental education controls (when relevant in the model), age in months, binary variables identifying students with a reported disability or learning disorder, students who were not autonomous during the survey data collection, students with a special teacher support, students who were absent at baseline or new in the school at endline, class size, binary indicators identifying whether the teacher is a math, Italian, or other subject teacher, as well as their gender, age, years of experience, level of education, eye test score, and binary indicators for holding a full-time or fixed-term contract.

Figure A.11. Treatment effect on inclusive teaching practices



Notes: The figure reports Weighted Least Square (WLS) estimates of treatment on teachers' inclusivity practices. Each outcome is standardized relative to the control mean of zero. The Inclusive Practice Index is the average of all items shown (reversed) and standardized relative to the control group. The weights are computed as the inverse of the predicted probability of being in the endline sample, estimated with a logit model that includes: binary indicators identifying whether the teacher is a math, Italian, or other subject teacher, as well as their gender, age, years of experience, level of education, eye test score, and binary indicators for holding a full-time or fixed-term contract. Regressions (WLS) include strata FE, enumerator FE, the value of the outcome collected at baseline, teacher's gender, experience and eye test score. 95% confidence intervals are calculated via standard errors clustered at the school level (unit of randomization).

B A Summary of Treatment Content

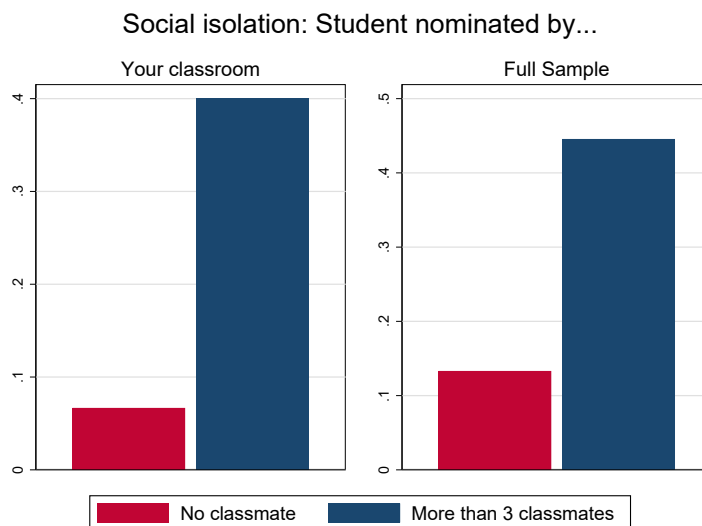
B.1 Summary and extracts of an exemplary classroom report

Introduction. This report is intended for teachers who participated in the DeSS "Development of Social Skills" Project starting from the academic year 2021-2022. The purpose of the report is to present some information on social isolation in the classroom and its effects on the socio-emotional development of students. Each report has the following six sections.

(i) **Social Isolation in the classroom.** This section reports the degree of isolation in each class and of the entire sample. Figure B.1 is an example. We report below an extract of the explanation provided for the figure.

. We report below the **degree of isolation** in your class (left) and the entire sample (right). The first vertical (red) bar shows the percentage of children who are not mentioned by any peers (the most "isolated"). The second vertical (blue) bar shows the percentage of children mentioned by more than three classmates (the most "popular"). The graph for the *entire sample* shows that there are some children who are mentioned by more than 3 peers, and others who are not mentioned by any peers. For the latter, the average in our sample is around 13%.

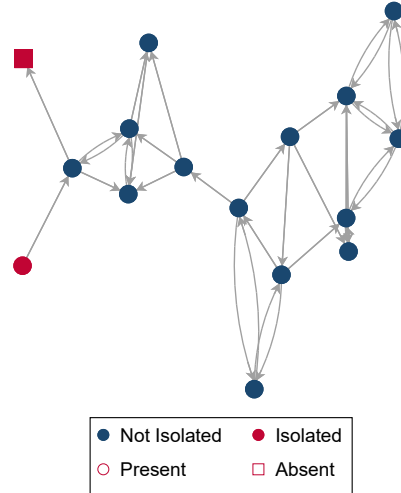
Figure B.1. Degree of social isolation in your class and the entire sample



Notes: The figure is an extract from a teacher report. The figure shows the share of students nominated by none among her classmates (blue bar) and the share of students nominated by more than three classmates (red bar).

(ii) **The classroom social network.** The report then presents the visual representation of the friendship network of the class. Figure B.2 is an example.

Figure B.2. Network of your class



Notes: The figure is an extract from a teacher report. The figure shows the network composition of a classroom, highlighting isolated (red dots) and not isolated students (blue dots).

We provide careful instructions on how to read each figure. Below an example:

How to read Figure B.2?

Each circle or square represents a student in your class. Outgoing arrows indicate that the child has named one (or more) children. Incoming arrows indicate that the child has been named by other children (one or more). The colored circles represent students who participated in the activities and were present in class, while squares represent absent students or those who did not participate in the activities. These students could not name any peers (due to absence or lack of parental consent) and therefore cannot have an outgoing arrow. However, these students could still be named by their peers (incoming arrow). The blue color represents children who have been mentioned by at least one classmate ("not isolated"). The red color represents "isolated" children: those who were not mentioned by any classmates.

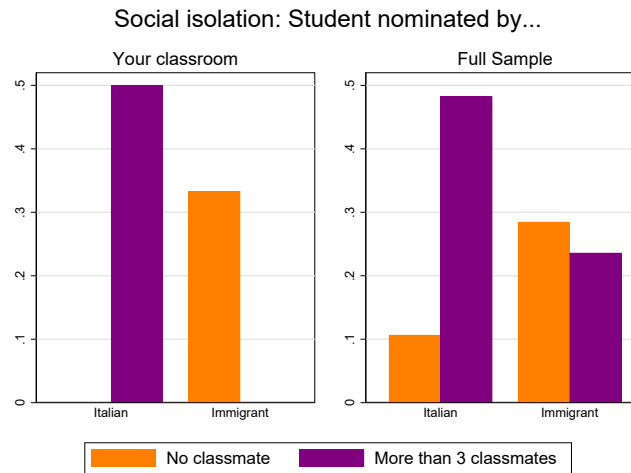
Note

It is possible that there are no "isolated" children in your class (children not mentioned by anyone). This is positive. However, some children may still be more isolated than others in the class.

(iii) **Who are the most socially excluded children?** The report then highlights and illustrates that there are some categories of children who tend to be more socially excluded than others (mostly migrant children and from lower socio-economic status). Figures B.3 and B.4 are examples. The report also includes the visual representation of the class network with a distinction between native and foreign children and the degree of isolation and another with a distinction between children with high or low educated parents (see Figure B.5 below). Also for all these figures we provide detailed instructions on how to read them.¹

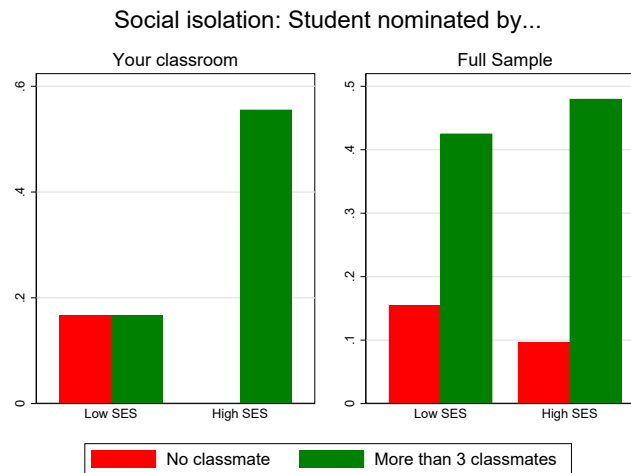
¹For example for Figure B.3 we explain that if there are no children in one of the categories, the corresponding bar will not be represented in the figure.

Figure B.3. Degree of social isolation in your class and the entire sample, distinction between natives and foreigners



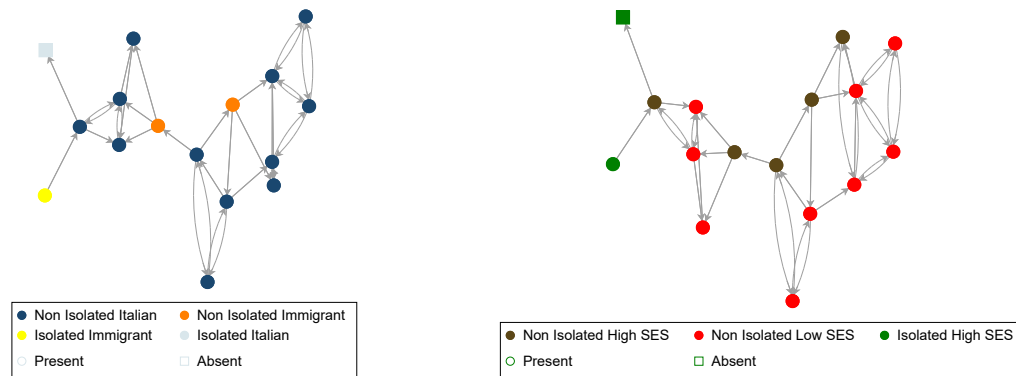
Notes: The figure is an extract from a teacher report. The figure shows the share of students nominated by none among her classmates (orange bar) and the share of students nominated by more than three classmates (purple).

Figure B.4. Degree of social isolation in your class and the entire sample, distinction by parents' education level



Notes: The figure is an extract from a teacher report. The figure shows the share of students nominated by none among her classmates (red bar) and the share of students nominated by more than three classmates (green). High SES is a binary indicator equal to one if at least one parent has a university degree.

Figure B.5. Network of your class, distinction between natives and foreigners and between high and low educated parents



Notes: The figure is an extract from a teacher report. The figure shows the network composition of a classroom, highlighting isolated and not isolated students. The figure on the left distinguishes between native and foreign students, while the figure on the right distinguishes between students with high and low educated parents. High SES is a binary indicator equal to one if at least one parent has a university degree.

(iv) Why is it so important? This section highlights the reasons why it is crucial to prevent social exclusion and isolation. We first reference neuroscientific research that shows social exclusion causes pain in individuals who experience itâpain that is comparable to physical pain. This is because the part of the brain called the "Dorsal Anterior Cingulate Cortex" (DACC) is responsible for activating pain. This same region is also activated when one feels socially excluded.

The report then emphasizes that the perception of social exclusion during childhood has significant negative consequences, both in the short and long term, impacting mental health, perceptions of the school environment, and a sense of belonging to the school. Continuous exposure to social exclusion can make this pain permanent, leading to negative effects in adulthood on mental and physical health, the likelihood of adopting aggressive behaviors, and self-confidence and self-esteem. The negative impact of social exclusion can also be reflected in academic performance, the probability of attending university, and the likelihood of success in the labor market.

We then mention that our analysis of the entire sample shows that more isolated children exhibit poorer socio-emotional states, a more negative perception of the school environment, and a lower sense of belonging to the school. The analysis also reveals that the effects on these indicators are more pronounced for foreign children and those from lower socioeconomic backgrounds. In each report, we include a visual representation of all these relationships for each class.

(v) The role of teachers: children's perception. The report reiterates that each teacher plays a fundamental role in the emotional development and formation of social skills in their students. It emphasizes that data analysis for the entire sample shows that the most socially isolated students feel less supported and observed by their teachers. The document then provides visual representation of the relationship between children's perceptions of their teachers' behavior and their degree of social isolation, both within their class and across the entire sample.

We further emphasize how teachers' actions influence the perceptions that children have of them, highlighting that the more teachers engage in behaviors that specifically address the needs of socially isolated students, the more they can contribute to improving these children's socio-emotional well-being and, more broadly, to the development of socio-emotional skills across the entire class.

(vi) What actions can you put into practice every day? The last section of the report includes practical suggestions on which actions and behaviors to adopt to ensure that every child is included in the relational system and in activities implemented every day in class. Below we provide a short summary of the practical tips included in the report:

- Regularly ask to children how they feel, particularly to the most isolated ones.
- Try to get all the children invited to birthday parties (provided concrete suggestions)
- Play the game "How would I feel in his /her place if.". Give examples of exclusion situations.
- Assign homework to a group, giving a role of responsibility to each child (spokesperson, note taker, ..) and make sure that everyone tries out different roles during various activities.
- Ensure that groups formed during activities consist of students with diverse characteristics, skills and abilities.
- Pay attention to how students are sitting and make sure to make them interact by varying where they are sitting.

B.2 Online meeting with teachers: Summary

Each online meeting followed in general the same structure of the personalized report. We provide below a short summary of the central elements of the meeting. We started with an introduction of the project and then highlighted the great importance of teacher's role for the socio-emotional development of students (*"You are role models for your students and your actions have a significant impact not only at the cognitive level but also on the non-cognitive development of each child."*). We emphasized how important their role is in the formation and functioning of **social relationships** within their classes (*"the way children interact with each other and spread information and knowledge can have permanent consequences on the cognitive and non-cognitive development of the child"*) and how these effects can persist into adolescence and adulthood and manifest in various areas, such as academic performance, the likelihood of continuing education, labor market outcomes, and physical and mental health. We then asked teachers to indicate how many students in their classes might not have been mentioned by any peers. Figure B.6 shows the responses and indicates that 81% of the teachers present at the meeting believed that there were less than 10% isolated students in their class. One in four teachers believed there were no isolated children in their class. We then immediately revealed teachers

that their perception of isolation was well below the sample average and provided visual representation of this figure (see Figure B.7).

Figure B.6. Perception of the degree of isolation by teachers present at the online meeting on 11/17/22

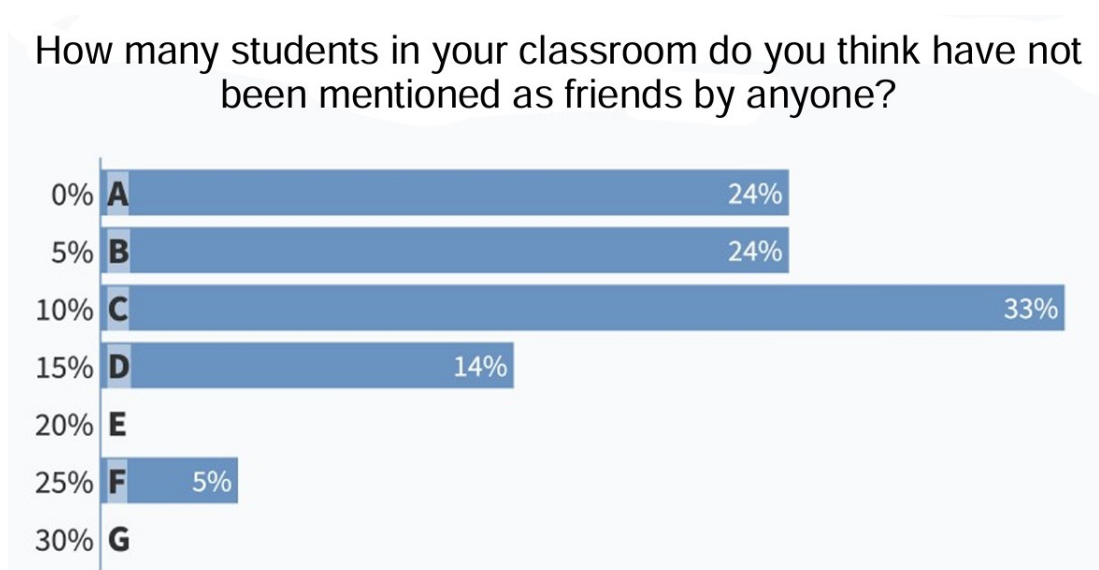
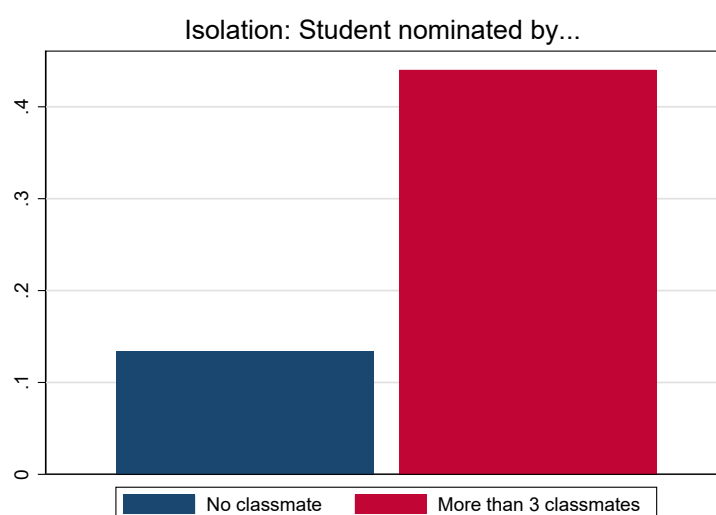


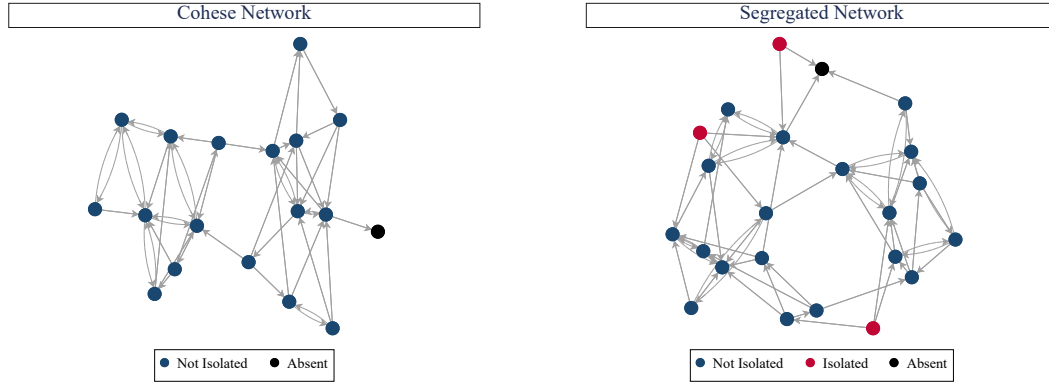
Figure B.7. Social Isolation (whole sample)



Notes: The figure shows the share of students nominated by none among her classmates (blue bar) and the share of students nominated by more than three classmates (red bar). To create this figure it was used the whole sample at baseline.

Classroom networks. We then provided a visual representation of examples of segregated and cohesive networks of selected classes (see figure B.8).

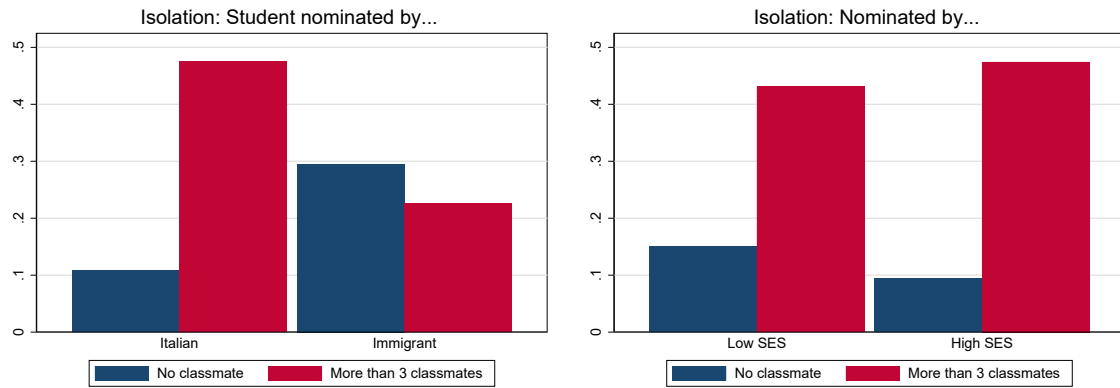
Figure B.8. Network of selected classrooms



Notes: The figure shows the network of students in two specific classrooms. Each node is a student in the classroom. Each edge represents whether the student is nominated as best friend the classmate.

Social isolation by migrant status and socioeconomic background. We showed that on average in our sample social isolation is more prevalent among immigrant students and students with a lower socio-economic background (see Figure B.9). We also provided visual representation of segregated and cohesive networks of selected classes highlighting how in segregated networks the most isolated are immigrants and lower SES students.

Figure B.9. Social isolation of selected classrooms by immigration status and by parents' socioeconomic status



Notes: The figure on the left shows the share of students nominated by none among her classmates (blue bar) and the share of students nominated by more than three classmates (red bar). Moreover, the sample is split in two groups: italian students and immigravennt students. To create this figure it was used the whole sample at baseline. The figure on the right shows the share of students nominated by none among her classmates (blue bar) and the share of students nominated by more than three classmates (red bar). Moreover, the sample is split in two groups: low socio-economic status (SES) students and high SES students. The SES is proxied by a dummy equal to one if at least one parent has a university degree. To create this figure it was used the whole sample at baseline.

Social isolation and student well-being. As in the personalized report we highlighted the reasons why preventing social isolation and social exclusion is crucial. We explain the adverse consequences these can have both in the short term and in the longer-term on several later-life outcomes (e.g., health, education, employment). We then showed

using our data the correlation between social isolation and our indicators of students well-being (mental well-being, sense of belonging to school and perceived teacher behavior).

Practical tips: we concluded the meeting by providing some practical suggestions of inclusive practices summarizing those included in each personalized report (see above).

Table B.1 below summarizes the key tips provided to teachers in the report.

Table B.1. Treatment tips

Report Tips	
Tip 1	Regularly ask children how they feel
Tip 2	Try to get all the children invited to birthday parties
Tip 3	Play the game "How would I feel in his /her place if?".
Tip 4	Assign group homework with rotating roles so each child takes on different responsibilities.
Tip 5	Ensure activity groups are diverse in traits, skills, and abilities.
Tip 6	Vary seating arrangements to encourage student interaction.

C Experimental Instructions and Implementation of Games

Hi everybody. My name is [Name]. We come from a university. Do you remember us? Great!! Do you remember us or our friends? Our colleagues came last year to do activities together and now that it is Spring we are back to do new games all together. You remember that we are from the university, the school of the grown-ups.

Well, we are here today again to do some activities with you. You already know some of these activities so it will be super easy! But we have also some new ones for you. All will be fun.

Now, let me tell you a few things before we start:

1. We brought some gifts for you today. You will all get some. How many each will get will depend on your decisions in our games. Yes, we will play some games again before giving you any gift.
2. I need you to follow some important rules OK?
 - (a) Everything will be secret. You are like spies. Do good spies reveal secrets? No! You will not show what you do to your friends OK?
 - (b) You won't talk to your friends during the activities OK?
 - (c) Absolute silence. If you follow these rules, you will have lots of gifts from us OK?
 - (d) We will give you your gift at the end of our visit. After everything is finished. OK? Can you wait? Yes! Great!

Also, for the activities we will do together today we will give you tablets [show one]. There are two very important things to remember though:

1. We will now hand out the tablets, but don't touch anything! It is very important that we all go ahead together in these games. If you go on by yourself, then you don't know what to do and we have to start all over again from the beginning and it becomes a bit boring, while we want to have fun. Right? So please don't press any buttons on the tablet until we tell you to do so.
2. Please remember that tablets are very very delicate objects, so we ask you to be very careful because we have to bring them back in one piece to our university. Please always keep them on your desk.

Are we ready?

Now, first we hand out slips of paper [Enumerator 2 (E2) or Enumerator 3 (E3) can hand out game sheets while Enumerator 1 (E1) is talking]. Let's write our first and last name on the game sheet we gave you. But don't write anything else on it, OK? I will explain what we are going to do with it.

So let's distribute the tablets.

Then let's distribute the tablets and the piece of papers (experiment decision papers). [all assistants and the experimenter together distribute everything].

Now, find our names in the menu. [help kids to find their names from dropdown menu].

Then let's write our name and last name on that little paper we gave you. But don't write anything else on it OK? I will explain what we will do with it. [make sure kids are ready]

Today, we will first play 2 games. Game 1, Game 2 [write exactly like this on the board].

I will explain all of them. Very easy. In fact, you know one of them perfectly well! But listen carefully. You will earn gift TOKENS for all games. There are no real tokens but imagine small tokens OK? What are these tokens for? You can get gifts from our bag using these tokens. In the game we will play you may collect more tokens. More tokens you collect, more gifts you will have. We have different gifts. Some you can get with 1 token, some you need to pay 2, 3 or 4 tokens. They are more valuable. Understand?

BUT. At the end of our visit, we will draw one game at random for the class and everyone will be paid according to that game only.

What I mean is gift tokens will not accumulate as you play more games. You will play all the games but will receive the gifts of only one game. Why do we do that? Well, we don't want you to think, I did Game 1, I don't need to do Game 2. Well, maybe Game 2 will come from the random draw and you will get gifts from this game. So, we want you to do all the games as carefully as possible to earn as many gift tokens as you can. OK? REMEMBER Only one game will be paid and you don't know which one!!! Be careful for all two games.

Now, I will explain Game 1. Very easy. Many of you have already played this game before.

Game 1

[EXPERIMENTER 2 draws the payoff matrix on the blackboard, but without filling it with the value of the payoffs. If there is an overhead projector in the classroom, use the colours orange and green to colour the matrix. When you enter the classroom E2 or E3 make sure to turn on the overhead projector or ask the teacher to do so while E1 is

presenting. This saves time.]

For this game we will give you 3 tokens [draw 3 circles on the board]. There are no real tokens but imagine small tokens OK? Everyone has 3. What are these tokens for? You can get gifts from our bag using these tokens. In the game we will play, you may collect more tokens. More tokens you collect, more gifts you will have. We have different gifts. Some you can get with 1 token, some you need to pay 2, 3 or 4 tokens. They are more valuable. Understand?

For this game we have coupled you up with one of your classmate. We will not tell you which classmate, but all of you have a partner. It could be anyone in this class. Before beginning the game, we will give you 3 tokens. We will not actually give you tokens, it's like a videogame score and we are keeping the points. Each of you has 3 tokens. They are important because before we leave we will give you some presents â everyone will receive something â but how many presents and how beautiful they are will depend on how many tokens you have gained in the game.

The game consists of picking a card, it's very easy. There is an orange card and a green card. Again, it's like a videogame, we will not really give you the card, but imagine an orange card and a green card. Each of you will have to pick one of these two cards, everyone will choose at the same time and we will all do it in secret. None of your classmates will know what you chose! It's very important that your decision stays a secret, imagine of being spies. A good spy never reveals their secrets, right?

Table C.1. Payoff Matrix for cooperation game

You	Classmate	
orangeA orange	orangeA orange	You: 3 tokens Classmate: 3 tokens
orangeA orange	greenV green	You: 9 tokens Classmate: 0 tokens
greenV green	orangeA orange	You: 0 tokens Classmate: 9 tokens
greenV green	greenV green	You: 6 tokens Classmate: 6 tokens

So, now don't forget, everyone starts with 3 tokens. Let me explain our game. Listen carefully.

Okay, now I will tell you what happens when you choose the cards. At the end of the game, my friends will see your answers. I told you before that we have paired you up with a classmate, do you remember? Yes? Amazing. But do you know who your partner is? No? Great, you understood well. I was saying, at the end of the game my friends will

see what you and your partner have picked.

[When explaining the game, E1 must be careful not to give hints or clues such as: "watch out, there's a trick" or judgements of morality, etc.]

If both you and your partner have picked orange, you will not gain any tokens, but you will not lose any: both of you will still have the initial 3 tokens at the end of the game.

If you pick orange, and your partner picks green, you will take all of the tokens of your partner and we will also give you some more. So, if you pick orange and your partner happens to pick green, you will have 9 tokens at the end of the game. You will take everything from your partner, though, and they will have 0 tokens. That means that you will have a lot of presents at the end of the game, but your partner will not.

If you pick green and your partner happens to pick orange you will lose all of your tokens! Your partner will take all of them from you. At the end of the game, you will be left with 0 tokens while your partner will have 9 of them and a lot of presents.

If both you and your partner have picked green, however, both of you will double your tokens. So at the end of the game each of you will have 6 tokens. This means double presents! But only if you both picked green.

[Ask several questions and make sure the students understand the game. Review the pay table again and again if necessary, always following the order of presentation]. So, we all chose in secret at the same time and you do not know who your partner is. Is it all clear? Any questions?

Now you are ready to choose. Be very careful, think of what you can choose and what your classmate might choose. You do not know which classmate is your partner, but you know all of them, so you can think of what they might choose to do. Now press the arrow on your tablet.

There are two options: green and orange. Do not show anyone what you choose: you are spies, remember? Now let's all choose at the same time: 3, 2, 1.go!

Now, mark your decision on that paper too! [paper has orange and green option] Then turn the page. [Allow the students to make their choices and go around the desks to check that they are writing on their game sheets and not going on with their tablet].

Game 2

Now, if Game 1 comes in the coin toss, we will pay you based on Game 1. But, may be Game 2 will come out of the coin toss. What is game 2? Let's see.

In this game we will ask you to do some additions.

For example $10 + 7 = ?$ What is the correct answer? [let them tell you what is the correct answer]

Write it on the tablet too, but be careful: write the numbers only in numbers, not in

letters or words! Do you know where to find the numbers on the tablet keyboard? If not, call us and we will help you. [rectangle, red , .. show how to make the number keyboard appear on the tablet. The difficult thing here is to make sure that they don't start all the addition. So tell the children to put their hands on their knees as soon as they have written the first example].

Did we all write 17 in the tablet? Did you all understand how to do that? So now let's all press the forward button together.

['Now it's your turn' appears: E2 - E3 must go around the classroom to make sure that no one starts addition just yet!!!].

There will be lots of questions like this. You will find the correct answer and type the answer and move forward to the next question. You will only have 2 minutes. Each correct answer will get you 1 token! So, you should do your best and do as many additions as you can in two minutes.

But you will play this game against an opponent, a paired classmate. Just like in the other game, we paired all of you with someone in your classroom. Not the same people in the first game of course! You have a pair, but you don't know who that is. All you know is she/he is here in this classroom, your classmate. It can be anybody in the classroom!

After 2 minutes, we will stop the game. Then here is what is going to happen. If you did more than your pair, you will get the tokens you earn, but your pair will get ZERO. But if your pair did more than you, he/she will get all the tokens he/she earned, you will get zero. Lets see some examples: Say

EXAMPLE 1 Player 1 did 8 correct. Player 2 did 7 correct. Who won? Yes, Player 1 did. So Player 1 get 8 tokens because they did 8 correct, but their pair gets ZERO! Not 7. Because they lost the game. What they did, disappears!!!

EXAMPLE 2 Say Player 1 did 9 correct. But Player 2 did 10 correct. Who won? Yes, Player 2 won. So, they gets 10 tokens, Player 1 get ZERO even though they did 9. All disappears when you lose the game.

EXAMPLE 3 Say Player 1 did 10, Player 2 did 10? Then we will toss a coin, pick a winner. Winner will get 10 tokens; loser will get ZERO.

So, in this game, there will always be a winner and a loser. Understand? OK. [PLEASE MAKE SURE KIDS SEE HOW BAD THE END CAN BE IN THIS GAME].

Are you ready? OK - let's begin! Please do your best as before! You now have two minutes to do all the additions. As soon as I say go ahead on the tablet and as soon as you see the addition list, write the answer as I showed you before and continue until the time runs out. Be sure to scroll with your finger and see lots of them appear. [Let them do the additions until the time runs out. As they complete the additions, E2 writes a

matrix on the blackboard with just the titles for the examples]

STOP**** [Hands on your knees]

Now, you all finished. But you don't know if you won or lost right? No idea. Maybe you won, maybe you lost. You don't even know how many correct you did for sure.

Now, we will do something about this. We will give all of you 5 extra tokens!!! Yes. Even if you lost, you would have 5 tokens!! Guaranteed in your pocket. NO MATTER WHAT HAPPENS.

But you can do something else with those tokens.

If you find it correct in your heart, you can cancel some of your pair's correct answers to increase your chances to win using these tokens. How? This is how: [E1: be careful and always use "cancel" as a verb.]

EXAMPLE 1:

Say you (P1) did 13 correct and your opponent (P2) did 14 correct. That means you lost this game (But you don't know). But we gave you extra 5 tokens, so you end up with only 5 tokens.

Table C.2. Example for sabotage game

	NUM OF COR- RECT AN- SWERS	ADDITIONAL TOKEN	DECISION TO CANCEL THE OPPONENT'S CORRECT QUESTION	FINAL TOKEN
PLAYER 1: YOU	13	5	0	LOSE $0+5=5$
PLAYER 2: YOUR PARTNER	14	5	0	WIN: $14+5=19$

But let's say this happened as an example:

You can cancel your pair's correct answers using the 5 extra tokens we gave you. But cancelling your pair's correct answers is not easy, there is a cost. For each correct answer you cancel, you have to pay one token from those extra 5 we gave you.

Let's go back to our example:

Table C.3. Example for sabotage game (Continuation)

	NUM OF COR- RECT AN- SWERS	ADDITIONAL TOKEN	DECISION TO CANCEL THE OPPONENT'S CORRECT QUESTION	FINAL TOKEN
PLAYER 1: YOU	13	5	2	WIN $13+3=16$
PLAYER 2: YOUR PARTNER	14 (-2 = 12)	5	0	LOSE $0+5=5$

But remember cancelling your pair's correct answers is not easy, there is a cost. For each correct answer you cancel, you have to pay one token from those extra 5 we gave you. To cancel 2, you have to give us back 2.

In this example, say you take 2 correct from your pair, but you need to spend 2 tokens for this action, so you have 3 left. Now you have 13 plus 3 left from what we gave you. Total of 16 tokens. Your pair lost so he will only have 5 tokens.

But don't forget, your pair can cancel your answers as well. You don't know who your pair is. You don't know what they will do. But you know she is in this classroom. One of your classmates.

EXAMPLE 2:

Table C.4. Example for sabotage game

	NUM OF COR- RECT AN- SWERS	ADDITIONAL TOKEN	DECISION TO CANCEL THE OPPONENT'S CORRECT QUESTION	FINAL TOKEN
PLAYER 1: YOU	9	5	0	LOSE $0+5=5$
PLAYER 2: YOUR PARTNER	14	5	4	WIN: $14+1=15$

Player 2 did 14, Player 1 did 9. Winner makes a move takes 4. (Doesn't know they won, so). Still wins, spend 4 tokens. Nothing changes. Winner gets $14+1$, loser gets 5.

[The game has many possible scenarios, so it is not easy to give examples: we have to make sure that kids understand the possible consequences. Repeat the same examples over and over if they have not understood.]

It's a tough decision! You need to decide whether you cancel the correct answer of your opponent. Is all clear?

[In this game, we have to invite them to think about the 'morality' of their choice in a very delicate way: strictly follow the text in the passages 'if you think it (is) not OK to

delete the correct answers to try to win at all costs, then .'].

Guys, you don't know what your pair will do. You don't know whether you lost, or you won. You have to make decisions without knowing these all at the same time. You don't have to cancel answers from your pair. But if you do, you have to spend tokens. You have 5 tokens, that means you can cancel maximum 5 correct answers from your pair. Because you don't know you won or you lose, you may want to change your luck by cancelling correct answers from your pair. If you think this is OK to cancel someone else's correct answers for your gain. Or you may choose to leave things as they are if you do not think it is okay to cancel someone else's correct answers for your own gain. It is really your decision. Everyone will decide at the same time so no one will know what the others do. You do this if you think it is OK to do so to your classmate. [a little morality push is OK]

Now, you have to make your decision. On your tablet, you will now see two questions on the tablet, only one of them will be applied to you but you will answer both because we don't know which one. We will pick one of the two to pay you. You have 5 tokens. Secretly decide whether you want to cancel your pair's correct answer. If so, how many. You can choose to take 0,1,2 3, 4 or 5.

On my go, we all go ahead on the tablet and read two questions together. Be careful: spies have a super power - super memory and remember the answer to both questions! Now read what the question asks and decide carefully. Let's all go ahead on the tablet: go!

Question 1: How many correct answers from your partner do you want to delete? Indicate your choice on the tablet.

Done? Good. [Go around the desks and check that they have answered on the tablet].

When everyone is here, we can move on. Now answer the second question as well.

Question 2: The classmate you are paired with could be someone whose parents are not Italian. How many correct answers from your partner do you want to delete? [If they say there is no one matching this description, they must select the same number as they put in before].

Done? Good.

[According to the day's file, ask them to write down the answer to the first or second question on the sheet]. Now copy your answers also on the sheet you have. It is the game with the moon, put an x above the corresponding number.

Be careful not to be seen.

[Check that everyone has also answered the second question and written the answers to the two questions on the paper before moving on.]

When I say so, press the forward button on the tablet. You will see how many right answers you got. Remember that it is a secret. When you see it, take the slip of paper again and turn the page. At the top where the moon symbol is written: "Number of correct answers", enter the number of correct answers you see on the tablet. Do this without being seen. When you are done, put your hands on your knees. Go!

Done? [End of the second game].

Game 3

There's a surprise for you: one last game! We give you 4 tokens. [draw 4 circles on the board]. These are not related to our previous game. You will get that game's gifts at the end of our visit. Don't worry!

These 4 tokens are yours as well. You can get gifts from our bag with these tokens. But before, listen to me very carefully:

There are many students that you don't know from other schools. They are your age and they all come from a different country. Their parents do not speak Italian.

Now look at your tablet again. There is a secret question for you about these 4 tokens. Press continue and read the question.

[The question they will read on the tablet is the following: How many tokens would you give to a student that you don't know and come from a foreign country?]

Don't forget! You don't have to give away your tokens. This is all a secret. If you don't want to give away mark "I want to keep all my tokens". If you want to give away some, decide how many you want to give. 1, 2, 3 or 4. Whatever you decide is OK. Whatever you decide, we will do exactly what you want. If you want to keep them all, we will give them to you, if you give away 1, we will take 1 and give it to those students we cannot visit, if you want to give away 2, we will take 2 from you and give them to those students

[Always state all 5 options. Repeat that they do not necessarily have to give the tokens away. If they give them, we will take away the tokens they give away to someone else. This is important! They must understand that we will implement their decision. Emphasize that we will implement what they do - "if you donate 2 tokens, we will take these 2 tokens and bring them to a foreign child in another school" (don't just ask if they understand how many they donate and how many they have left)].

Now, don't show anything to anyone and mark your decision on the tablet. Secret!

And mark the same decision on the piece of paper in front of you. All done!!

[EXPERIMENTER 3/2 - Pick up the game sheets now. Don't wait. Make sure their names are on the sheets and that they have put ticks on the choices and entered the token numbers]

[EXPERIMENTER 2/3 leaves the classroom and goes to calculate the payoffs of the games. They will use a coin to take one of the two games (cooperation or sabotage) randomly, calculate each child’s payoff (the payoff is at the end of this document) and prepare the envelope with each child’s label and the gifts]

We now move on to our next activity.

D Survey Items

Table D.1. Student Survey Inventories

Inventory	Items	Baseline	Endline
<i>Choose how often you have felt this way during the last week (Never/ Rarely, Sometimes, Often, Always)</i>			
Mental Well-Being	I am happy	✓	✓
	I get upset quickly	✓	✓
	I feel lonely	✓	✓
	I enjoy a lot of things	✓	✓
<i>How often do these things happen in your class? (Never/ Rarely, Sometimes, Often, Always)</i>			
Italian teacher’s perceived behaviour	My Italian language teacher notices when I am sad	✓	✓
	My Italian language teacher praises me for good work.	✓	✓
	My Italian language teacher screams or yells at me.	✓	✓
Math teacher’s perceived behaviour	My math teacher notices when I am sad	✓	✓
	My math teacher praises me for good work.	✓	✓
	My math teacher screams or yells at me	✓	✓
<i>Thinking of your school: How often do these things happen? (Never/Rarely, Sometimes, Often, Always)</i>			
Sense of belonging at school	I prefer not to come to school if I could	✓	Reversed
	I feel my classmates like me	✓	✓
	I feel lonely at school	✓	✓

Table D.2. Network Elicitation Templates

	None	1	2	3
My best friends in the class				

Notes: The respondent can select at most 3 classmates she considers as best friends

Table D.3. Teacher Survey Inventories

Inventory	Exemplary Items	Baseline	Endline
Teaching experience	Which of the following subjects do you currently teach? (Select all that apply)	✓	✓
	How many years of teaching experience do you have in primary and/or secondary school?	✓	✓
	What is your highest level of education (excluding teacher training)?	✓	✓
	What is your current employment status as a teacher?	✓	✓
	What type of contract do you have?	✓	✓
Socio-demographic characteristics	What is your gender?	✓	✓
	What is your date of birth?	✓	✓
Teacher’s emotional intelligence	Eyes Test	✓	✓
<i>5-point likert scale: Strongly disagree/Disagree/Neither agree or disagree/Agree/Strongly agree.</i>			
Teaching styles and practices	I allow students to choose on their own friends for group activities.	✓	✓
	I group students with the same ability level and assign different tasks to each group based on their ability levels.	✓	✓
	Even if some students don’t understand a specific topic, I must move on with the program with the rest of the class.	✓	✓

References

- Cameron, A. C., Gelbach, J. B., and Miller, D. L. (2008). Bootstrap-based improvements for inference with clustered errors. *The Review of Economics and Statistics*, 90(3):414–427.
- Imbens, G. W. and Wooldridge, J. M. (2009). Recent developments in the econometrics of program evaluation. *Journal of economic literature*, 47(1):5–86.