

# Empowering Adolescents to Transform Schools: Lessons from a Behavioral Targeting Online Appendix

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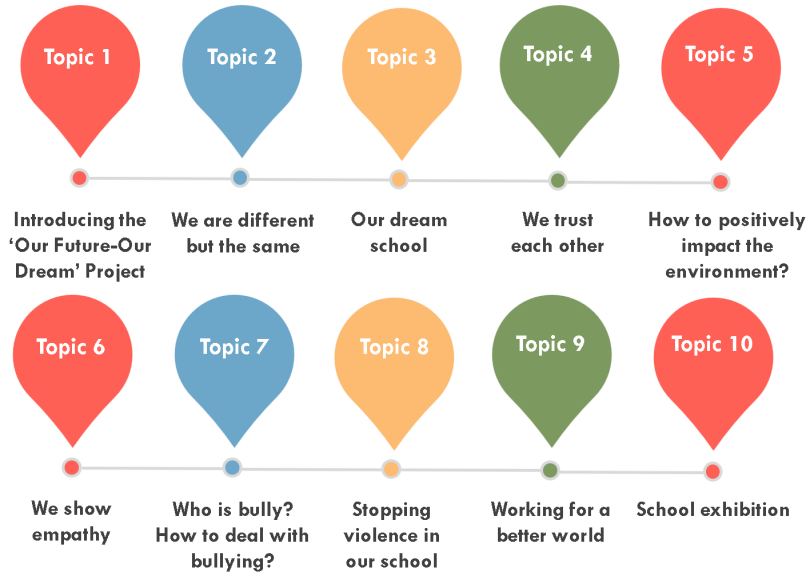
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# I Intervention Content and Activity Examples

**Figure B1:** “Our Future-Our Dream” Curriculum Overview



**Table B1: “Our Future-Our Dream” Curriculum**

<p><b>TOPIC 1: INTRODUCING THE ‘OUR FUTURE-OUR DREAM’ PROJECT</b></p> <p><b>Purpose:</b> Introducing student-teachers and let them announce the project to their junior classrooms.</p> <p><b>Materials (2 weeks):</b> Slides, Movie, Activity, Booklet</p>	<p><b>TOPIC 2: WE ARE DIFFERENT BUT THE SAME</b></p> <p><b>Purpose:</b> Conveying to junior students our shared similarities. Students learn that all individuals share similarities, they feel the pain and happiness in the same way.</p> <p><b>Materials (2 weeks):</b> Activity, Booklet, Poster</p>
<p><b>TOPIC 3: OUR DREAM SCHOOL</b></p> <p><b>Purpose:</b> Fostering a positive school environment and healthy peer relationships. Learning about one’s power to transform their school.</p> <p><b>Materials (2 weeks):</b> Slides, Activity, Animated Movie, Booklet, Poster preparations</p>	<p><b>TOPIC 4: HOW TO POSITIVELY IMPACT THE ENVIRONMENT</b></p> <p><b>Purpose:</b> Teaching students about positive and negative impacts one can make to their social and physical environment</p> <p><b>Materials (2 weeks):</b> Activity, Booklet</p>
<p><b>TOPIC 5: WE TRUST EACH OTHER</b></p> <p><b>Purpose:</b> Understanding the importance of trust for healthy social relations</p> <p><b>Materials (2 weeks):</b> Activity, Animated Movie, Booklet, Poster preparations</p>	<p><b>TOPIC 6: WE SHOW EMPATHY</b></p> <p><b>Purpose:</b> Teaching students the concept of empathy and how to recognize empathetic concern</p> <p><b>Materials (1 week):</b> Activity, Booklet, Poster</p>
<p><b>TOPIC 7: WHO IS THE BULLY? HOW TO DEAL WITH BULLYING?</b></p> <p><b>Purpose:</b> Examining what may lie beneath violent and anti-social behavior. Psychology of a bully.</p> <p><b>Materials (2 weeks):</b> Activity, Animated Movie, Booklet</p>	<p><b>TOPIC 8: STOPPING VIOLENCE IN OUR SCHOOL</b></p> <p><b>Purpose:</b> Achieving a violence-free school, understanding the world-wide problem of peer violence and its consequences.</p> <p><b>Materials (2 weeks):</b> Activity, Animated Movie, Booklet, Poster</p>
<p><b>TOPIC 9: WORKING FOR A BETTER WORLD</b></p> <p><b>Purpose:</b> Understanding the importance of working toward cleaner, conflict-free, tolerant and sustainable world. Recognizing one’s power to achieve many goals.</p> <p><b>Materials (2 weeks):</b> Activity, Booklet, Poster</p>	<p><b>TOPIC 10: EXHIBITION</b></p> <p><b>Purpose:</b> Preparing an exhibition using materials created during the academic year. Dissemination of project outputs to school.</p> <p><b>Materials (1 week):</b> Exhibition Materials (Drawings, Posters, etc.)</p>



Figure B3: Examples of Children Activities

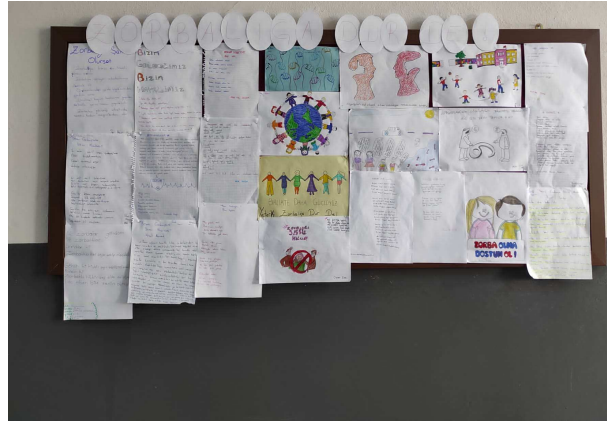


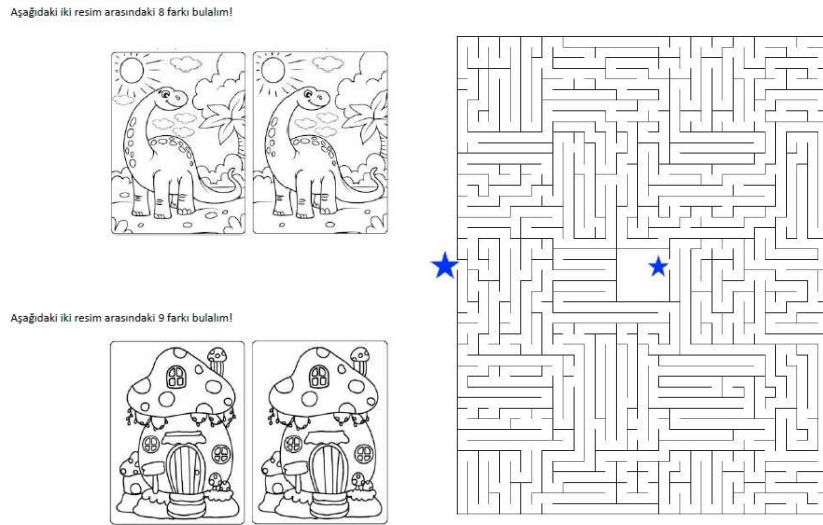
Figure B4: Booklet Covers



## II Placebo Content and Activity Examples

Placebo activities included simple tasks such as coloring, doing mazes, finding hidden objects in pictures, and connecting dots to reveal a picture. In the placebo schools, student-teachers were responsible for explaining these activities to their junior class, distributing the activity books, and assisting the students as needed. Additionally, student-teachers were tasked with maintaining order in the classroom, similar to their responsibilities in the treatment activities. See below examples of placebo activities.

**Figure B5:** Placebo Activity Booklet

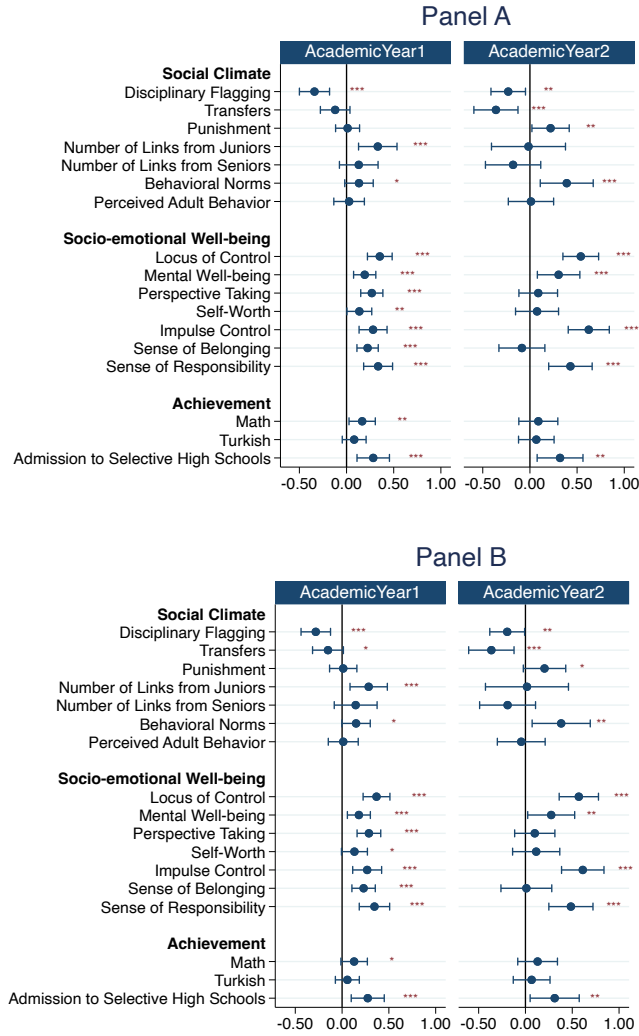


**Figure B6:** Examples of Children Activities (Placebo)



### III Additional Robustness Checks

Figure B7: Treatment Effects on Student-Teachers



Notes: The figure depicts the estimated treatment effects on all outcomes for student-teachers. In Panel A, regressions include an extra control (a dummy) variable for student-teachers who were wrongly selected due to a coding error. In Panel B, wrongly selected student-teachers are excluded from the analysis sample. All regressions control for baseline outcome when available, gender, age in months, baseline cognitive scores, school type fixed effects, school size, and district fixed effects. The 95% confidence intervals are based on standard errors clustered at the school level (unit of randomization). Asterisks indicate that coefficient is statistically significant at the 1% \*\*\*, 5% \*\*, and 10% \* levels.



## IV Power Calculations

**Table B2:** Intra-cluster correlations and MDEs

	Full Sample		Juniors (Grades 5 and 6)		Seniors (Grades 7 and 8)	
	ICC	MDE	ICC	MDE	ICC	MDE
Disciplinary Flagging	0.026	0.015	0.045	0.022	0.028	0.015
Transfers	0.014	0.089	0.033	0.136	0.018	0.102
Punishment	0.024	0.113	0.051	0.165	0.009	0.077
Support Ties from Juniors	0.053	0.163	.	.	0.053	0.165
Support ties from Seniors	0.120	0.243	.	.	0.120	0.244
Behavioral Norms	0.019	0.100	0.055	0.171	0.021	0.108
Perceived Adult Behavior	0.016	0.093	0.054	0.170	0.017	0.100
Locus of Control	0.046	0.153	0.071	0.192	0.033	0.132
Mental Well-being	0.010	0.076	0.039	0.146	0.005	0.064
Perspective Taking	0.046	0.152	0.039	0.147	0.034	0.135
Self-Worth	0.012	0.083	0.018	0.107	0.013	0.089
Impulse Control	0.005	0.060	0.026	0.123	0.009	0.076
Sense of Belonging	0.014	0.088	0.018	0.107	0.015	0.095
Sense of Responsibility	0.021	0.106	0.039	0.146	0.011	0.083
Math Score	0.059	0.172	0.177	0.296	0.047	0.155
Turkish Score	0.073	0.191	0.200	0.314	0.058	0.172
Selective High-School	0.050	0.041	.	.	0.050	0.041

Notes: The table presents intra-cluster correlations (ICCs) and minimum detectable effects (MDEs) for all outcomes. MDEs are given in percentage points for disciplinary flagging, selective high school admission, and standard deviation units for the rest. Baseline data are used for all outcomes except for disciplinary flagging and selective high school admission variables, for which the control group's endline data are used. Support ties represent support nominations received by seniors and are, therefore, not defined for juniors. Selective high school exam is taken in grade 8, so admission information is available only for 2022 and 2023 cohorts of seniors.

**Table B3:** Intra-cluster correlations and MDEs: Senior Subgroups

	Student-Teachers		Seniors in ST Networks		Seniors outside ST Networks	
	ICC	MDE	ICC	MDE	ICC	MDE
Disciplinary Flagging	0.000	0.028	0.029	0.023	0.015	0.013
Transfers	0.017	0.177	0.013	0.103	0.034	0.149
Punishment	0.000	0.154	0.010	0.097	0.012	0.107
Support Ties from Juniors	0.060	0.227	0.042	0.157	0.034	0.149
Support ties from Seniors	0.137	0.294	0.047	0.165	0.115	0.247
Behavioral Norms	0.016	0.176	0.031	0.139	0.038	0.155
Perceived Adult Behavior	0.091	0.256	0.016	0.110	0.014	0.113
Locus of Control	0.062	0.229	0.040	0.154	0.072	0.201
Mental Well-being	0.039	0.204	0.003	0.076	0.014	0.113
Perspective Taking	0.079	0.245	0.038	0.151	0.080	0.210
Self-Worth	0.021	0.183	0.016	0.111	0.028	0.139
Impulse Control	0.071	0.238	0.000	0.067	0.032	0.146
Sense of Belonging	0.046	0.212	0.034	0.144	0.009	0.101
Sense of Responsibility	0.006	0.164	0.007	0.090	0.048	0.169
Math Score	0.079	0.245	0.047	0.165	0.049	0.172
Turkish Score	0.033	0.198	0.047	0.165	0.106	0.238
Selective High-School	0.015	0.055	0.060	0.043	0.058	0.039

Notes: The table presents intra-cluster correlations (ICCs) and minimum detectable effects (MDEs) for all outcomes for senior subgroups. MDEs are given in percentage points for disciplinary flagging, selective high school admission, and standard deviation units for the rest. Baseline data are used for all outcomes except for disciplinary flagging and selective high school admission variables, for which the control group’s endline data are used.

## V The Third-Party Punishment Game

### V.1 Detailed Description of the Third-Party Punishment Game

Our game involves randomly forming student groups of three within the classroom and assigning two of them the role of "player" and the other "observer." Students did not know which role they would take at the outset and were told this would be determined at the end of the game. Therefore, they were to play the game first by assuming the role of players, and their decisions and outcomes would be recorded. Then, they were to change roles and play as observers, and those decisions and outcomes would also be recorded. At the end of the session, those who were chosen as players would receive their gifts according to points they earned as players, and those selected as observers would receive their gifts according to points they earned as observers.<sup>1</sup>

<sup>1</sup>This implementation method, referred to as strategy method, is theoretically equivalent to playing the game by splitting the sample at the outset (Brandts and Charness, 2011). The advantage of this method in our context is that it preserves the power of our design, as we do not have to split the sample into players

Players first compete against each other in a real-effort task. The task involves typing as many meaningless 5-character password sequences as possible, containing lower and upper case letters and numbers in 1.5 minutes. The player who types the most at the end of 1.5 minutes receives 1 gift point per correct password. The other player receives zero points regardless of the number of correct passwords they typed. In case of a tie, a player is chosen as a winner at random and receives 1 gift point per correct password, and the other player receives zero points. Each gift point can be converted into an actual gift we brought to the classroom and showed the students before introducing the game.<sup>2</sup> After students completed the task, before knowing their winning status against their opponent, they were informed that all players would receive 2 bonus gift points so that even the ones who lost would end up with two points worth of gifts at the very least. They were then informed that they could use these two bonus points to transfer their opponents' correct answers to themselves to increase (decrease) their (their opponent's) chances of winning. They were informed that each transfer, however, would cost one bonus point, so they could transfer a maximum of 2 correct answers since they have only 2 bonus points. Players were repeatedly told that the transfer decision was theirs, so they could choose zero transfer, costing nothing, one transfer, costing one bonus point, or two transfers, costing two bonus points. They were also reminded that their opponent had the same transfer options.

Additionally, before they made their transfer decision, students were informed that the observer in their group would see how many correct answers each player transferred from the other player, and if she desired, she could destroy correct answers. She could, of course, choose not to destroy, destroy one or two from each player, so the maximum she could destroy from a player is 2. We gave numerous examples of different situations to ensure students fully understood the consequences of possible actions.<sup>3</sup> Students were then asked to make their transfer decisions, which amounted to transferring from the other player zero, 1, or 2 correct answers. After eliciting these decisions, they were asked to make a guess about the action of their opponent, i.e., whether they believed the opponent transferred zero, 1, or 2 from them. The action of costly transfer is our incentive-compatible measure of anti-social behavior, as it represents unfair competition in our setting. Elicited beliefs about the opponent's action tell us about the perceived relational climate, as it quantifies the anti-social behavior expected from classmates.

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and observers to estimate the treatment effects on decisions.

<sup>2</sup>These are small but attractive gift items of value to our target group, including key chains and play cards of famous football teams, attractive stationary items, notebooks, pens, etc.

<sup>3</sup>The implementation of this task took an entire lecture hour. We did not elicit decisions before ensuring the students fully understood the game.

After performing as players, students were asked to assume the role of observers and reminded about the possible actions of the observer. They were told that each observer had an endowment of 6 gift points. Their role is to decide whether to destroy the answers of the players in their group and, if so, which player and how many. Students were told that destruction was costly for the observer. To destroy one correct answer, the observer had to give up one of her 6 points, and she could destroy up to 4 correct answers (2 from each player). They were told over and over again that they did not have to destroy, and if they did not, they would keep their 6 points. We elicited the decisions of the observers using a strategy method again. For this, we went through every possible transfer behavior and elicited the punishment decision, starting from the situation that neither player transferred any, then player 1 transferred 1, the other did not transfer any, then each transferred 1, and so on. Note that there are 6 possibilities to consider due to the symmetry between two players.

Given the structure of the game, the payoff  $P$  of player  $i$  is

$$P_i = 2 + X_i + Y_i - Y_j - Z_i,$$

and the payoff of the observer is

$$P_o = 6 - Z_i(Y_i, Y_j) - Z_j(Y_i, Y_j),$$

where

- $X_i$ : Number of correct answers by player  $i$
- $Y_i$ : Number of correct answers transferred by player  $i$  from player  $j$ , and  $Y_i \in 0, 1, 2$
- $Y_j$ : Number of correct answers transferred by player  $j$  from player  $i$ , and  $Y_j \in 0, 1, 2$
- $Z_i(Y_i, Y_j)$ : Number of correct answers of player  $i$  destroyed by the observer, and  $Z_i \in 0, 1, 2$
- $Z_j(Y_i, Y_j)$ : Number of correct answers of player  $j$  destroyed by the observer, and  $Z_j \in 0, 1, 2$

We consider three social outcomes using the decisions in this game. First is the number of correct answers transferred, i.e.,  $Y_i$ , representing anti-social/unfair behavior toward a classmate. The second is the anti-social behavior expected from classmates (players' guess about the action of their opponents). The final one is the cost incurred to punish players.

For this, we define an aggregate cost of punishment metric using asymmetric transfer cases. The aggregate cost of punishment of players  $i$  and  $j$  in cases of asymmetric transfers:

$$C_o = \sum_{(Y_i, Y_j) \in Y} (Z_i(Y_i, Y_j) - Z_j(Y_i, Y_j)),$$

where  $Y_i, Y_j \in 0, 1, 2$  and  $Y = (Y_i, Y_j) | Y_i \neq Y_j$ .

We expect treated students, especially our target subgroups, to transfer less, expect more fair behavior from their classmates, and exhibit a higher tendency to punish unfair actions.

## V.2 Instructions of the Third-Party Punishment Game

Hello everyone! We will play a fun game with you today. By playing this game, you will have a chance to earn gift points. Each point corresponds to a gift of equal value from our gift bag [show the gift bag to students]. The decisions you make during the game will determine the number of gift points you earn. The more points you earn, the more and nicer gifts you get!

You will see passwords that consist of letters and numbers in this game [write down the following example on the board: **eA1k7**]. What you need to do is very simple: using the tablets, you need to type the exact same passwords in the blank spaces. You should pay attention to the lower and upper case letters to be able to correctly type the password. The number of correctly typed passwords will determine how many gift points you will earn! You will need to type as many passwords as you can. Let's first work on some examples to understand this better [students work on typing three example passwords].

Now, in this game we will randomly allocate everyone to groups of three. This means that you will be matched with two of your classmates but you will not know who they are. The people in your group could be anyone in the classroom!

In each group there will be 2 PLAYERS and 1 OBSERVER, the person who observes the game. Right now, you do not know your role. You could be either of the players or the observer [draw the following diagram on the board]. You will first play the game as the player and then as the observer. In the end, your role will be randomly determined. If you are chosen as the player, your decisions as a player will determine your gift points. If you are chosen as the observer, your decisions as the observer will determine your gift points. Since you don't know which role you will have right now, listen to the rules and make your decisions very carefully.

## PLAYER 1

## OBSERVER

## PLAYER 2

Suppose that you are selected as one of the players. Then you will play this password game against the other player in your group. You will have 1.5 minutes. The one who types the highest number of passwords will be the winner and earn as many gift points as the number of correctly typed passwords. The other player will lose and not going to earn anything.

Let's try to understand this with some examples.

1. Example 1: Suppose that we have the following scenario:

(a) PLAYER 1: 8 (correctly typed passwords)

(b) PLAYER 2: 7 (correctly typed passwords)

Who do you think would be the winner? [Ask students] How many gift points would player 1 earn? [8 points] How many gift points would player 2 earn? [0 point]

2. Example 2: Suppose that we have the following scenario:

(a) PLAYER 1: 7 (correctly typed passwords)

(b) PLAYER 2: 8 (correctly typed passwords)

Who would be the winner? [Ask students] How many gift points would player 1 earn? [0 point] How many gift points would player 2 earn? [8 points]

3. Example 3: Suppose that we have the following scenario:

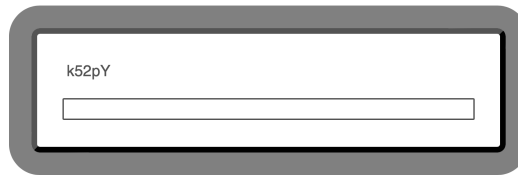
(a) PLAYER 1: 8 (correctly typed passwords)

(b) PLAYER 2: 8 (correctly typed passwords)

Who would be the winner? [Ask students] Now, in this case there is a tie. When there is a tie, we will randomly select a player and announce him/her as the winner. In this case, the winner would receive 8 gift points, and the loser would receive nothing.

Have you all understood the rules? [Take questions and make sure that everyone understood the game] Then, get ready to type the passwords! [countdown from three and start the game]

**Figure B8:** Password Game - An Example



[When the time is up] Ok, now the time is up. Right now, you do not know if you are the winner or not. Maybe you typed more correct passwords than your opponent in your group and won the game. OR you typed less and you lost!

Now, I will give you two bonus gift points. These are yours to keep. If you want you can use these to buy gifts. OR you can use them to do something else! [Write 2 at the upper left corner of the players to indicate the 2 bonus points as in the following:]

**2**  
**PLAYER 1**

**2**  
**PLAYER 2**

You can use these to transfer your opponent's correctly typed passwords to yourself. However, there is a cost of transferring passwords: For each transfer you want to make, you need to spend one bonus point. For example, if you want to transfer one correct answer, you will have to give up one bonus point, if you want to transfer two correct answers, you will have to give up two bonus points. When you transfer, your opponent's correct answers will decrease, yours will increase. In other words, your probability of winning will increase. Similarly, your opponent might or might not transfer your correct passwords to himself/herself - you don't know this. The bonus points you have not spent will be yours at the end of the game.

Let's briefly talk about the observer. The observer in your group will not know how many passwords are correctly typed by each player. However, the observer will see how many

correct answers are transferred by each player. Based on this observation, the observer can punish the players by destroying their correct answers.

Let's understand how transferring works with examples. Suppose that Player 1 and 2 have 8 and 7 correct answers, respectively [draw the following]

**2**

**PLAYER 1: 8 correct**

**2**

**PLAYER 2: 7 correct**

- (a) Suppose that both players decide not to transfer any correct answers from each other. In this case, Player 1 wins the game and Player 2 loses. In the end, Player 1 earns 10 gift points (8 from the correctly typed passwords + 2 bonus gift points) and Player 2 earns only 2 gift points (zero gift points from the game + 2 bonus points).
- (b) Suppose that Player 1 does not transfer any correct answers and Player 2 transfers 1 correct answer. In this scenario Player 1's correctly typed passwords will go down to 7 and Player 2's correctly typed passwords will increase to 8. Keep in mind that Player 1 still has 2 bonus points in his pocket but Player 2 is left with only 1 bonus point since she used one of her bonus points to transfer 1 correct answer from Player 1. In this scenario, since Player 2 has more correct answers than Player 1, she wins the game and earns 9 gift points (8 from the correctly typed passwords + 1 bonus point) and Player 1 earns only 2 gift points (zero gift points from the game + 2 bonus points).
- (c) Now suppose that both players transfer 1 correct answer from each other. [This scenario is explained as the ones above]

Do you have any questions? If not, you can now make your choice. How many correct answers would you like to transfer from the other player? 0, 1 or 2? Enter your responses and then wait [Students enter their responses in the tablets].



**Figure B9:** Screen Shot of the Decision Screen: Transfers

Diyelim ki **OYUNCU** seçildin.

Diğer oyuncunun kaç doğrusunu kendine almak istersin?

HİÇ almak istemem

1 DOĞRUSUNU almak isterim

2 DOĞRUSUNU almak isterim

Now, you all made a choice! This means that your opponent in your group also made a choice, right? Now, I would like you to guess your opponents choice. How many correct answers do you think your opponent has chosen to transfer from you? 0,1 or 2? Make your guess discreetly.

**Figure B10:** Screen Shot of the Decision Screen: Beliefs on the Opponent's Transfer

**Tahminde bulun!**

Sence diğer oyuncu senin kaç doğrunu alacak?

HİÇ almaz

1 DOĞRUMU alır

2 DOĞRUMU alır

Now, you played the game as the player, however, you might also be selected as the observer. Therefore, you will now play the game as the observer and make your decisions. The observer starts the game with 6 gift points. If you remember, as the observer you do not know the number of correctly typed passwords by players. However, you can see the transfers made by the players. Based on this, you can destroy the correct answers of players using his/her gift points. However, destroying correct answers comes at a cost! For each correct answer you would like to destroy, you need to spend one gift point. For example, if you destroy one correct answer, you have 5 gift points left, if you destroy two correct answers, you have 4 gift points left. Do you understand? Now, let's see some examples:

- (a) Suppose that you look at the transfers of the players. One likely scenario could be the following. In this scenario, since the players did not transfer anything from each other, would it make sense to destroy their correct answers?

**PLAYER 1:** No transfers

**PLAYER 2:** No transfers

- (b) Another likely scenario could be the following. You look at the transfers and you see that player 1 transferred one correct answer from the other player and player 2 has transferred none. Now, you need to make a decision: if you want you can destroy correct answers of either player 1, player 2 or both.

**PLAYER 1:** 1 transfer

**PLAYER 2:** No transfers

- (c) Another likely scenario could be the following. You look at the transfers and you see that both player 1 and player 2 transferred one correct answer from each other. Now, you need to make a decision: if you want you can destroy correct answers of either player 1, player 2 or both.

**PLAYER 1:** 1 transfer

**PLAYER 2:** 1 transfer

[Remaining scenarios are reviewed to make sure students understand them well] Do you have any questions? Now, let's start making decisions. [The scenarios are read to students one by one and students make decisions]

[The following scenarios are read aloud to students. Then, students make their decisions discreetly]

## Scenario 1

Player 1	Zero transfer
Player 2	Zero transfer

- How many correct answers would you like to destroy from Player 1?
  - o None
  - o 1 correct answer
  - o 2 correct answers
- How many correct answers would you like to destroy from Player 2?
  - o None
  - o 1 correct answer
  - o 2 correct answers

**Figure B11:** Screen Shot of the Decision Screen for Scenario 1

Diyelim ki **İZLEYİCİ** seçildin. 6 pulun var.

---

OYUNCU 1: Diğer oyuncudan **HİÇ DOĞRU** almamış.

OYUNCU 2: Diğer oyuncudan **HİÇ DOĞRU** almamış.

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**OYUNCU 1'in** kaç doğrusunu **yok edersin?**

HİÇ yok etmem

1 TANE yok ederim

2 TANE yok ederim

---

**OYUNCU 2'nin** kaç doğrusunu **yok edersin?**

HİÇ yok etmem

1 TANE yok ederim

2 TANE yok ederim

## Scenario 2

Player 1	1 transfer
Player 2	Zero transfers

- How many correct answers would you like to destroy from Player 1?
  - o None
  - o 1 correct answer
  - o 2 correct answers
- How many correct answers would you like to destroy from Player 2?
  - o None
  - o 1 correct answer
  - o 2 correct answers

**Figure B12:** Screen Shot of the Decision Screen for Scenario 2

Diyelim ki **İZLEYİCİ** seçildin. 6 pulun var.

OYUNCU 1: Diğer oyuncudan **1 DOĞRU** almış.

OYUNCU 2: Diğer oyuncudan **HİÇ DOĞRU** almamış.

**OYUNCU 1'in kaç doğrusunu yok edersin?**

HİÇ yok etmem

1 TANE yok ederim

2 TANE yok ederim

**OYUNCU 2'nin kaç doğrusunu yok edersin?**

HİÇ yok etmem

1 TANE yok ederim

2 TANE yok ederim

### Scenario 3

Player 1	2 transfers
Player 2	No transfer

- How many correct answers would you like to destroy from Player 1?
  - o None
  - o 1 correct answer
  - o 2 correct answers
- How many correct answers would you like to destroy from Player 2?
  - o None
  - o 1 correct answer
  - o 2 correct answers

**Figure B13:** Screen Shot of the Decision Screen for Scenario 3

Diyelim ki **İZLEYİCİ** seçildin. 6 pulun var.

---

OYUNCU 1: Diğer oyuncudan **2 DOĞRU** almış.

OYUNCU 2: Diğer oyuncudan **HIÇ DOĞRU** almamış.

---

**OYUNCU 1'in kaç doğrusunu yok edersin?**

HIÇ yok etmem

1 TANE yok ederim

2 TANE yok ederim

---

**OYUNCU 2'nin kaç doğrusunu yok edersin?**

HIÇ yok etmem

1 TANE yok ederim

2 TANE yok ederim

## Scenario 4

Player 1	1 transfer
Player 2	1 transfer

- How many correct answers would you like to destroy from Player 1?
  - o None
  - o 1 correct answer
  - o 2 correct answers
- How many correct answers would you like to destroy from Player 2?
  - o None
  - o 1 correct answer
  - o 2 correct answers

**Figure B14:** Screen Shot of the Decision Screen for Scenario 4

Diyelim ki **İZLEYİCİ** seçildin. 6 pulun var.

OYUNCU 1: Diğer oyuncudan **1 DOĞRU** almış.

OYUNCU 2: Diğer oyuncudan **1 DOĞRU** almış.

**OYUNCU 1'in kaç doğrusunu yok edersin?**

HİÇ yok etmem

1 TANE yok ederim

2 TANE yok ederim

**OYUNCU 2'nin kaç doğrusunu yok edersin?**

HİÇ yok etmem

1 TANE yok ederim

2 TANE yok ederim

## Scenario 5

Player 1	2 transfers
Player 2	1 transfer

- How many correct answers would you like to destroy from Player 1?
  - o None
  - o 1 correct answer
  - o 2 correct answers
- How many correct answers would you like to destroy from Player 2?
  - o None
  - o 1 correct answer
  - o 2 correct answers

**Figure B15:** Screen Shot of the Decision Screen for Scenario 5

Diyelim ki **İZLEYİCİ** seçildin. 6 pulun var.

---

OYUNCU 1: Diğer oyuncudan **2 DOĞRU** almış.

OYUNCU 2: Diğer oyuncudan **1 DOĞRU** almış.

---

**OYUNCU 1'in kaç doğrusunu yok edersin?**

Hiç yok etmem

1 TANE yok ederim

2 TANE yok ederim

---

**OYUNCU 2'nin kaç doğrusunu yok edersin?**

Hiç yok etmem

1 TANE yok ederim

2 TANE yok ederim

## Scenario 6

Player 1	2 transfers
Player 2	2 transfers

- How many correct answers would you like to destroy from Player 1?
  - o None
  - o 1 correct answer
  - o 2 correct answers
- How many correct answers would you like to destroy from Player 2?
  - o None
  - o 1 correct answer
  - o 2 correct answers

**Figure B16:** Screen Shot of the Decision Screen for Scenario 6

Diyelim ki **İZLEYİCİ** seçildin. 6 pulun var.

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OYUNCU 1: Diğer oyuncudan **2 DOĞRU** almış.

OYUNCU 2: Diğer oyuncudan **2 DOĞRU** almış.

---

**OYUNCU 1'in kaç doğrusunu yok edersin?**

HİÇ yok etmem

1 TANE yok ederim

2 TANE yok ederim

---

**OYUNCU 2'nin kaç doğrusunu yok edersin?**

HİÇ yok etmem

1 TANE yok ederim

2 TANE yok ederim



## VI Survey Inventories

**Table B4: Student Survey Inventory - I**

Inventory	Items
<i>4-point likert scale: completely agree, agree, disagree, completely disagree</i>	
<b>Locus of Control</b>	1. We can fix the bad things in our lives.
	2. I believe that I have control over the things that happen to me.
	3. My successes and failures are all mine.
	4. It is our job to fix the bad things in our school.
	5. We can make this school the best in the neighborhood if we work together.
	6. We can not do the things we want for our school because adults would not let us.
	<b>Notes:</b> Items 1,2 and 3 are obtained from the Rotter's Locus of Control scale <a href="#">Rotter (1966)</a> and adapted to the study context. The remaining items are developed and validated by the authors for this study.
<b>Mental Well-Being</b>	1. I have bad habits.
	2. I often get into fights and discussions.
	3. I feel lonely.
	4. I damage others' belongings.
	5. I get along with other kids.
	6. I think nobody likes me.
	7. I often think that everyone is against me and trying to hurt me.
	8. I feel inconsequential.
	9. I prefer to be alone rather than being with others.
	10. I feel unhappy.
	<b>Notes:</b> All items are obtained from the Youth Self-Report (11-18) ( <a href="#">Achenbach and Rescorla, 2001</a> ) and adapted to the study context.
<b>Perspective-Taking</b>	1. I can put myself in someone else's shoes and understand how they feel.
	2. I try to understand how others feel.
	3. My friends talk to me about their problems.
	4. I can tell if a friend of mine is upset.
	<b>Notes:</b> All items are adapted from the perspective taking scale of the Interpersonal Reactivity Index developed by <a href="#">Davis (1980)</a> . The same items were used by <a href="#">Alan et al. (2021)</a> in a similar context .
<b>Self-Worth</b>	1. I am proud of myself and my accomplishments.
	2. Sometimes I feel like I can not get anything right.
	3. Sometimes I feel like I am not worthy of anything.
	4. I generally think that I am an unsuccessful person.
	<b>Notes:</b> All four items are developed and validated superficially for this study.
<b>Impulse Control</b>	I tend to say the first thing that comes to my mind.
	I pay attention to the rules while playing games.
	I can control my temper when there is a fight.
	I find it difficult to sit still during lectures.
	I have a very low temper.
	<b>Notes:</b> All items are obtained from the Secondary Education Survey of Hong Kong (SESHK) ( <a href="#">Chan and Lam, 2014</a> ). The same items were used by <a href="#">Alan et al. (2021)</a> and <a href="#">Alan and Mumcu (2024)</a> .
<b>Sense of Belonging</b>	My schoolmates are like my family.
	My classmates do not notice when I do not show up to school. They are never worried about me.
	I do not feel belong in my school and my classroom.
	My classmates always support me.
	My schoolmates do not care about me.
	<b>Notes:</b> These items are obtained from the sense of belonging module used in the PISA questionnaire ( <a href="#">OECD, 2019</a> ) and adapted to the study context.
<b>Narcissism</b>	I think I am a very special person.
	I find it easy to manipulate people.
	I like to be the center of attention.
	I can make anybody believe anything I want them to.
	I like to have authority over other people.
	I am a born leader.
	<b>Notes:</b> These items are obtained from the Narcissistic Personality Inventory ( <a href="#">Raskin and Terry, 1988</a> ) and adapted to the study context .

**Table B5: Student Survey Inventory - II**

Inventory	Items
<i>5-point frequency scale: never, rarely, sometimes, often, always</i>	
<b>Sense of Responsibility</b>	1. I think about serious global problems such as wars and hunger. 2. Environmental pollution, waste, and people’s irresponsibility bother me. 3. I think about the causes and consequences of global warming. <i>Notes:</i> These items are developed and validated by the authors specifically for this study.
<b>Behavioral Norms</b>	1. My classmates/schoolmates talk behind each other. 2. My classmates/schoolmates inform school administrators and teachers when there is a problem. 3. My classmates/schoolmates threaten and hit each other. 4. My classmates/schoolmates protect each other. 5. My classmates/schoolmates stay out of trouble. 6. My classmates/schoolmates make fun of each other 7. My classmates/schoolmates are nice to each other 8. My classmates/schoolmates trust each other. <i>Notes:</i> All items are obtained from the descriptive norm questionnaire used by <a href="#">Paluck et al. (2016)</a> and adapted to the study context.
<b>Perceived Adult Behavior</b>	1. Adults respect my opinions. 2. When there is a problem, I can talk to adults. They listen to me. 3. Adults do not take me seriously. 4. Adults treat me harshly. 5. My teachers grade my papers fairly. 6. My teachers often treat me unfairly. 7. Teachers like me. 8. Teachers usually have a favourite student in the classroom and only these students can receive good grades. <i>Notes:</i> These items are developed and validated by the authors specifically for this study.
<b>Social Networks: Friendship</b>	My best friend in this school [Entry 1]: [Select] My best friend in this school [Entry 2]: [Select] My best friend in this school [Entry 3]: [Select] <i>Notes:</i> Senior students were allowed to write up to 5 friends in the baseline.
<b>Social Networks: Support Ties</b>	The student who supports me the most in this school [Entry 1]: [Select] The student who supports me the most in this school [Entry 2]: [Select] The student who supports me the most in this school [Entry 3]: [Select]
<b>Social Networks: Popular Students</b>	The most popular student in this school [Entry 1]: [Select] The most popular student in this school [Entry 2]: [Select] The most popular student in this school [Entry 3]: [Select] The most popular student in this school [Entry 4]: [Select] The most popular student in this school [Entry 5]: [Select] <i>Notes:</i> Popularity questions were only asked in the baseline to be used for student-teacher selection.

## VII Additional Balance Tables

**Table B6:** Balance at Baseline - Juniors (Grades 5 and 6)

	N	Control Mean	Placebo Mean	Treatment Mean	p-value [T = C]	p-value [T = P]	p-value [C = P]
<b>Student Demographics:</b>							
Proportion of Males	10802	0.500	0.523	0.508	0.532	0.282	0.155
Age (months)	10504	130.365	130.802	130.106	0.573	0.177	0.333
No. Siblings	8520	3.839	3.891	3.802	0.995	0.725	0.731
Computer at Home	8521	0.265	0.247	0.291	0.661	0.644	0.942
Internet at Home	8521	0.518	0.512	0.559	0.521	0.747	0.817
<b>Social Climate:</b>							
Behavioral Norms	8513	0.116	0.163	0.155	0.635	0.693	0.468
Perceived Adult Behavior	8518	0.080	0.068	-0.011	0.214	0.348	0.904
Experienced Anti-social Behavior	8516	1.576	1.612	1.574	0.965	0.751	0.743
Having a Friend	10543	0.747	0.727	0.762	0.466	0.056	0.372
Friendship Ties (in-degree)	10543	2.013	1.977	2.090	0.363	0.112	0.589
<b>Socio-Emotional Well-being:</b>							
Locus of Control	8499	-0.152	-0.130	-0.102	0.604	0.966	0.650
Mental Well-being	8488	0.047	0.017	0.053	0.962	0.768	0.801
Perspective Taking	8487	-0.201	-0.229	-0.168	0.724	0.547	0.805
Impulse Control	8484	0.107	0.104	0.129	0.698	0.753	0.989
Sense of Belonging	8495	-0.039	-0.051	-0.002	0.448	0.465	0.902
Sense of Responsibility	8512	-0.108	-0.142	-0.171	0.263	0.383	0.879
<b>Cognitive Skills:</b>							
Math Score	8522	0.309	0.273	0.359	0.866	0.701	0.816
Turkish Score	8522	0.334	0.287	0.408	0.679	0.664	0.937
Fluid IQ (Raven)	8522	-0.294	-0.326	-0.275	0.996	0.982	0.986
Emotional Intelligence (RMET)	8522	-0.258	-0.281	-0.268	0.861	0.792	0.912
<i>Joint test p-value: [T vs. C]</i>	0.423						
<i>Joint test p-value: [P vs. C]</i>	0.011						

Notes: The table presents the balance of student-level variables for the junior sample (grades 5 and 6) at baseline. All cognitive test scores and survey measures are standardized to have a zero mean and a unit standard deviation. P-values of equality tests across treatment status are obtained by controlling for district fixed effects and clustering standard errors at the school level (unit of randomization). Letter C indicates the pure control group, P and T placebo, and treatment groups.

**Table B7:** Balance at Baseline - Seniors (Grades 7 and 8)

	N	Control Mean	Placebo Mean	Treatment Mean	p-value [T = C]	p-value [T = P]	p-value [C = P]
<b>Student Demographics:</b>							
Proportion of Males	12073	0.500	0.500	0.519	0.123	0.088	0.911
Age (months)	11844	153.426	153.800	152.993	0.692	0.185	0.493
No. Siblings	9347	3.857	3.846	3.690	0.649	0.680	0.966
Computer at Home	9348	0.267	0.258	0.286	0.893	0.864	0.798
Internet at Home	9348	0.576	0.509	0.585	0.983	0.639	0.647
<b>Social Climate:</b>							
Behavioral Norms	9339	-0.057	-0.090	-0.014	0.466	0.136	0.561
Perceived Adult Behavior	9344	-0.047	0.016	-0.001	0.493	0.859	0.394
Experienced Anti-social Behavior	9342	1.467	1.466	1.437	0.312	0.375	0.902
Having a Friend	11919	0.864	0.831	0.847	0.324	0.468	0.139
Friendship Ties (in-degree)	11919	3.470	3.287	3.458	0.819	0.238	0.253
<b>Socio-Emotional Well-being:</b>							
Locus of Control	9328	0.077	0.070	0.081	0.780	0.969	0.836
Mental Well-being	9309	-0.045	-0.020	0.011	0.180	0.560	0.720
Perspective Taking	9311	0.102	0.060	0.108	0.862	0.612	0.538
Impulse Control	9306	-0.079	-0.085	-0.061	0.605	0.333	0.690
Sense of Belonging	9322	0.019	0.029	0.055	0.632	0.641	0.948
Sense of Responsibility	9342	0.062	0.003	0.014	0.199	0.813	0.186
<b>Cognitive Skills:</b>							
Math Score	9348	-0.229	-0.202	-0.105	0.069	0.556	0.596
Turkish Score	9348	-0.235	-0.222	-0.148	0.203	0.654	0.740
Fluid IQ (Raven)	9348	0.115	0.115	0.199	0.358	0.657	0.856
Emotional Intelligence (RMET)	9533	0.116	0.083	0.168	0.490	0.534	0.880
<i>Joint test p-value: [T vs. C]</i>					0.093		
<i>Joint test p-value: [P vs. C]</i>					0.018		

Notes: The table presents the balance of student-level variables for the senior sample (grades 7 and 8) at baseline. All cognitive test scores and survey measures are standardized to have a zero mean and a unit standard deviation. P-values of equality tests across treatment status are obtained by controlling for district fixed effects and clustering standard errors at the school level (unit of randomization). Letter C indicates the pure control group, P and T placebo, and treatment groups.

**Table B8:** Balance at Baseline - Student-Teachers and Seniors in Student-Teacher Networks

	N	Control Mean	Placebo Mean	Treatment Mean	p-value [T = C]	p-value [T = P]	p-value [C = P]
<b>Student Demographics:</b>							
Proportion of Males	6529	0.494	0.511	0.510	0.520	0.834	0.458
Age (months)	6517	152.236	152.455	152.141	0.740	0.190	0.232
No. Siblings	5771	3.802	3.839	3.683	0.809	0.618	0.792
Computer at Home	5771	0.266	0.251	0.290	0.861	0.968	0.926
Internet at Home	5771	0.579	0.489	0.595	0.934	0.338	0.380
<b>Social Climate:</b>							
Behavioral Norms	5767	-0.026	-0.059	0.034	0.261	0.094	0.655
Perceived Adult Behavior	5770	-0.013	0.006	0.037	0.542	0.295	0.766
Experienced Anti-social Behavior	5769	1.441	1.435	1.411	0.383	0.483	0.995
Having a Friend	6529	0.959	0.951	0.954	0.588	0.409	0.200
Friendship Ties (in-degree)	6529	4.497	4.360	4.487	0.923	0.223	0.279
<b>Socio-Emotional Well-being:</b>							
Locus of Control	5766	0.121	0.112	0.127	0.789	0.998	0.808
Mental Well-being	5755	0.002	-0.040	0.041	0.519	0.104	0.203
Perspective Taking	5756	0.182	0.139	0.170	0.555	0.845	0.487
Impulse Control	5754	-0.086	-0.088	-0.077	0.870	0.587	0.753
Sense of Belonging	5764	0.133	0.107	0.146	0.986	0.601	0.650
Sense of Responsibility	5769	0.074	0.032	0.037	0.263	0.888	0.288
<b>Cognitive Skills:</b>							
Math Score	5771	-0.191	-0.192	-0.051	0.055	0.191	0.797
Turkish Score	5771	-0.205	-0.176	-0.110	0.125	0.632	0.577
Fluid IQ (Raven)	5771	0.162	0.182	0.260	0.267	0.622	0.721
Emotional Intelligence (RMET)	6529	0.142	0.120	0.202	0.361	0.337	0.854
<i>Joint test p-value: [T vs. C]</i>					0.098		
<i>Joint test p-value: [P vs. C]</i>					0.002		

Notes: The table presents the balance of student-level variables for the sample of student-teachers and their networks at baseline. All cognitive test scores and survey measures are standardized to have a zero mean and a unit standard deviation. P-values of equality tests across treatment status are obtained by controlling for district fixed effects and clustering standard errors at the school level (unit of randomization). Letter C indicates the pure control group, P and T placebo, and treatment groups.

## VIII Main Result Tables using Benchmark Model (Pooled Placebo and Pure Control)

**Table B9:** Treatment Effects on Disciplinary Flagging

<b>Panel A: Academic Year 1</b>			
	Full Sample	Juniors (Grades 5 and 6)	Seniors (Grades 7 and 8)
Treatment	-0.011** (0.004)	-0.007 (0.005)	-0.013*** (0.004)
Control Mean	0.021	0.020	0.021
WB p-value [TR]	0.017	0.216	0.005
Observations	27028	10802	16226

<b>Panel B: Academic Year 2</b>			
	Full Sample	Juniors (Grades 5 and 6)	Seniors (Grades 7 and 8)
Treatment	-0.017*** (0.006)	-0.018** (0.008)	-0.017*** (0.006)
Control Mean	0.033	0.035	0.033
WB p-value [TR]	0.006	0.022	0.015
Observations	27841	10818	17023

Notes: The table presents the estimated treatment effects (via OLS) on the probability of disciplinary flagging for the full, junior, and senior samples. The binary dependent variable equals one for students flagged as having extreme behavioral issues and zero otherwise. Regressions control for gender, age in months, baseline cognitive scores, school type fixed effects, and district fixed effects. “WB p-value [TR]” stand for wild bootstrapped p-value for the estimated treatment effects. Standard errors are clustered at the school-level. Asterisks indicate that coefficient is statistically significant at the 1% , 5% , and 10% levels.

**Table B10:** Treatment Effects on Disciplinary Flagging - Senior Subgroups

<b>Panel A: Academic Year 1</b>			
	Student-Teachers (ST)	Seniors in ST Networks	Seniors outside ST Networks
Treatment	-0.041*** (0.010)	-0.019*** (0.007)	-0.008* (0.004)
Control Mean	0.058	0.030	0.018
WB p-value [TR]	0.000	0.015	0.076
Observations	1269	5260	4896

<b>Panel B: Academic Year 2</b>			
	Student-Teachers (ST)	Seniors in ST Networks	Seniors outside ST Networks
Treatment	-0.033** (0.014)	-0.016** (0.007)	-0.014* (0.007)
Control Mean	0.060	0.036	0.036
WB p-value [TR]	0.029	0.032	0.077
Observations	565	2381	4510

Notes: The table presents the estimated treatment effects (via OLS) on the probability of disciplinary flagging for senior subgroups. The binary dependent variable equals one for students flagged as having extreme behavioral issues and zero otherwise. Regressions control for gender, age in months, baseline cognitive scores, school type fixed effects, and district fixed effects. “WB p-value [TR]” stands for wild bootstrapped p-value for the estimated treatment effects. Standard errors are clustered at the school-level. Asterisks indicate that coefficient is statistically significant at the 1% , 5% , and 10% levels.

**Table B11: Treatment Effects on Social Support Networks**

<b>Panel A: Support Ties directed to Student-Teachers</b>				
	Academic Year 1		Academic Year 2	
	From Juniors	From Seniors	From Juniors	From Seniors
Treatment	0.111*** (0.038)	0.232 (0.247)	0.125** (0.062)	-0.356 (0.358)
Control Mean	0.191	4.982	0.244	4.110
WB p-value [TR]	0.007	0.411	0.083	0.382
Observations	1269	1269	565	565

<b>Panel B: Support Ties directed to Seniors in Student-Teacher Networks</b>				
	Academic Year 1		Academic Year 2	
	From Juniors	From Seniors	From Juniors	From Seniors
Treatment	-0.024 (0.019)	0.009 (0.153)	0.062** (0.030)	-0.173 (0.251)
Control Mean	0.190	3.607	0.137	2.876
WB p-value [TR]	0.280	0.974	0.087	0.577
Observations	5247	5247	2381	2381

Notes: The table presents the estimated treatment effects on the number of support ties formed within the school. Panel A presents ties directed to student-teachers, and Panel B to student-teacher networks. The dependent variable in columns 1 and 3 is the total number of support ties formed between student-teachers and juniors (directed from juniors to student-teachers). The dependent variable in columns 2 and 4 is the total number of support ties formed between student-teachers and other seniors (directed from seniors to student-teachers). Panel B replicates Panel A for student-teacher networks. Reported estimates are obtained from ordinary least squares (OLS) regressions. Regressions control for respective baseline outcomes, gender, age in months, baseline cognitive scores, class size, share of boys in class, school type fixed effects, school size, and district fixed effects. “WB p-value [TR]” stands for wild bootstrapped p-value for the estimated treatment effects. Standard errors are clustered at the school level. Asterisks indicate that coefficient is statistically significant at the 1% \*\*\*, 5% \*\*, and 10% \* levels.



**Table B12:** Treatment Effects on Admission to Selective High Schools

<b>Panel A: Academic Year 1 (Cohort 2022)</b>			
	Student-Teachers (ST)	Seniors in ST Networks	Seniors outside ST Networks
Treatment	0.065** (0.026)	0.017 (0.011)	0.001 (0.012)
Control Mean	0.096	0.054	0.046
WB p-value [TR]	0.017	0.204	0.928
Observations	573	2270	2048

<b>Panel B: Academic Year 2 (Cohort 2023)</b>			
	Student-Teachers (ST)	Seniors in ST Networks	Seniors outside ST Networks
Treatment	0.069*** (0.024)	0.024** (0.011)	0.016 (0.011)
Control Mean	0.128	0.063	0.047
WB p-value [TR]	0.007	0.047	0.214
Observations	633	2685	2624

Notes: The table presents the estimated treatment effects on the probability of admission to selective high schools for senior subgroups who graduated in 2022 (Panel A) and 2023 (Panel B). The dependent variable is a binary variable, which equals 1 if the student is admitted to a selective high school and zero otherwise. Reported estimates are obtained from ordinary least squares (OLS) regressions. Regressions control for gender, age in months, baseline cognitive scores, school type fixed effects, and district fixed effects. “WB p-value [TR]” stands for wild bootstrapped p-value for the estimated treatment effects. Standard errors are clustered at the school level. Asterisks indicate that coefficient is statistically significant at the 1% \*\*\*, 5% \*\*, and 10% \* levels.

**Table B13: Treatment Effects on Academic Outcomes**

<b>Panel A: Academic Year 1</b>						
	Full Sample		Juniors (Grades 5 and 6)		Seniors (Grades 7 and 8)	
	Math	Turkish	Math	Turkish	Math	Turkish
Treatment	0.069** (0.031)	0.030 (0.032)	0.058 (0.036)	0.051 (0.044)	0.088** (0.037)	0.010 (0.027)
WB p-value [TR]	0.035	0.419	0.148	0.316	0.034	0.722
Observations	16402	16402	8143	8143	8259	8259

<b>Panel B: Academic Year 2</b>						
	Full Sample		Juniors (Grades 5 and 6)		Seniors (Grades 7 and 8)	
	Math	Turkish	Math	Turkish	Math	Turkish
Treatment	-0.001 (0.034)	0.040 (0.037)	-0.000 (0.048)	0.032 (0.047)	0.008 (0.032)	0.053 (0.033)
WB p-value [TR]	0.967	0.319	1.000	0.519	0.795	0.153
Observations	15749	15749	7791	7791	7958	7958

Notes: The table presents estimated treatment effects on academic test scores for the full, junior and senior samples. The dependent variables are standardized math and Turkish test scores. Reported estimates are obtained from ordinary least squares (OLS) regressions. The regressions control for respective baseline scores, gender, age in months, baseline cognitive scores, class size, share of boys in class, school type fixed effects, and district fixed effects. P-value [TR=P] presents the p-value from the test of equality of treatment and placebo effects. “WB p-value [TR]” stands for wild bootstrapped p-value for the estimated treatment effects. Standard errors are clustered at the school level. Asterisks indicate that coefficient is statistically significant at the 1% \*\*\*, 5% \*\*, and 10% \* levels.

**Table B14:** Treatment Effects on Academic Outcomes - Senior Subgroups

<b>Panel A: Academic Year 1</b>						
	Student-Teachers (ST)		Seniors in ST Networks		Seniors outside ST Networks	
	Math	Turkish	Math	Turkish	Math	Turkish
Treatment	0.121*	0.048	0.107**	0.027	0.057	0.003
	(0.065)	(0.058)	(0.044)	(0.029)	(0.047)	(0.038)
WB p-value [TR]	0.090	0.483	0.024	0.365	0.302	0.941
Observations	991	991	3975	3975	2636	2636

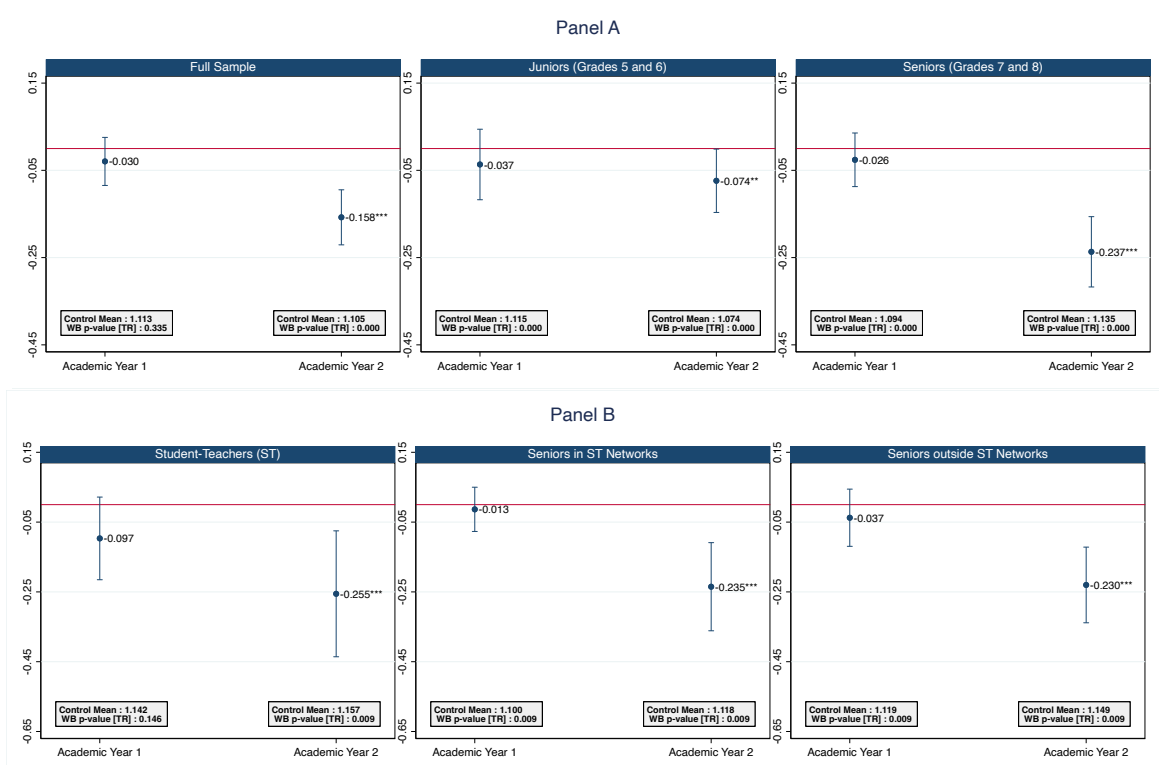
  

<b>Panel B: Academic Year 2</b>						
	Student-Teachers (ST)		Seniors in ST Networks		Seniors outside ST Networks	
	Math	Turkish	Math	Turkish	Math	Turkish
Treatment	0.048	0.022	-0.078	0.097*	0.068	0.058
	(0.103)	(0.092)	(0.052)	(0.050)	(0.049)	(0.036)
WB p-value [TR]	0.665	0.819	0.167	0.089	0.194	0.139
Observations	356	356	1363	1363	2298	2298

Notes: The table presents estimated treatment effects on academic test scores for senior subgroups. The dependent variables are standardized math and Turkish test scores. Reported estimates are obtained from ordinary least squares (OLS) regressions. The regressions control for respective baseline scores, gender, age in months, baseline cognitive scores, class size, share of boys in class, school type fixed effects, and district fixed effects. P-value [TR=P] presents the p-value from the test of equality of treatment and placebo effects. “WB p-value [TR]” stands for wild bootstrapped p-value for the estimated treatment effects. Standard errors are clustered at the school level. Asterisks indicate that coefficient is statistically significant at the 1% \*\*\*, 5% \*\*, and 10% \* levels.

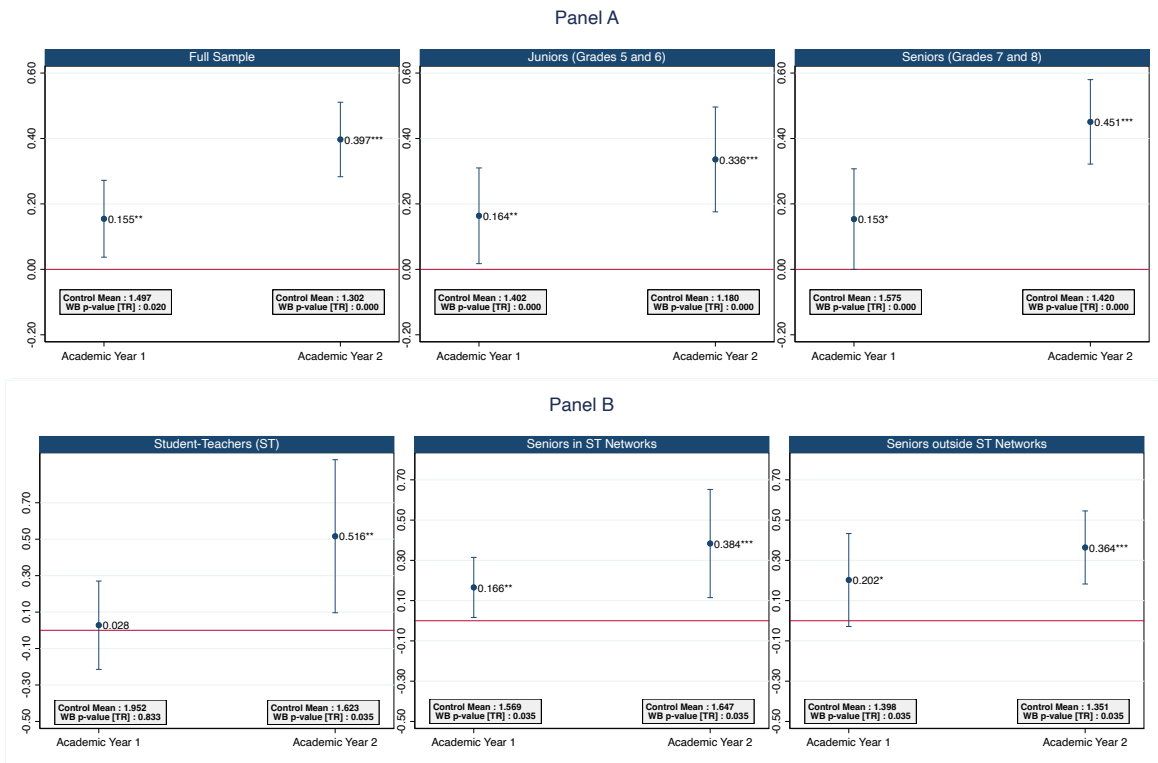
# IX Main Result Figures using Benchmark Model (Pooled Placebo and Pure Control)

**Figure B17:** Treatment Effects on Anti-Social behavior



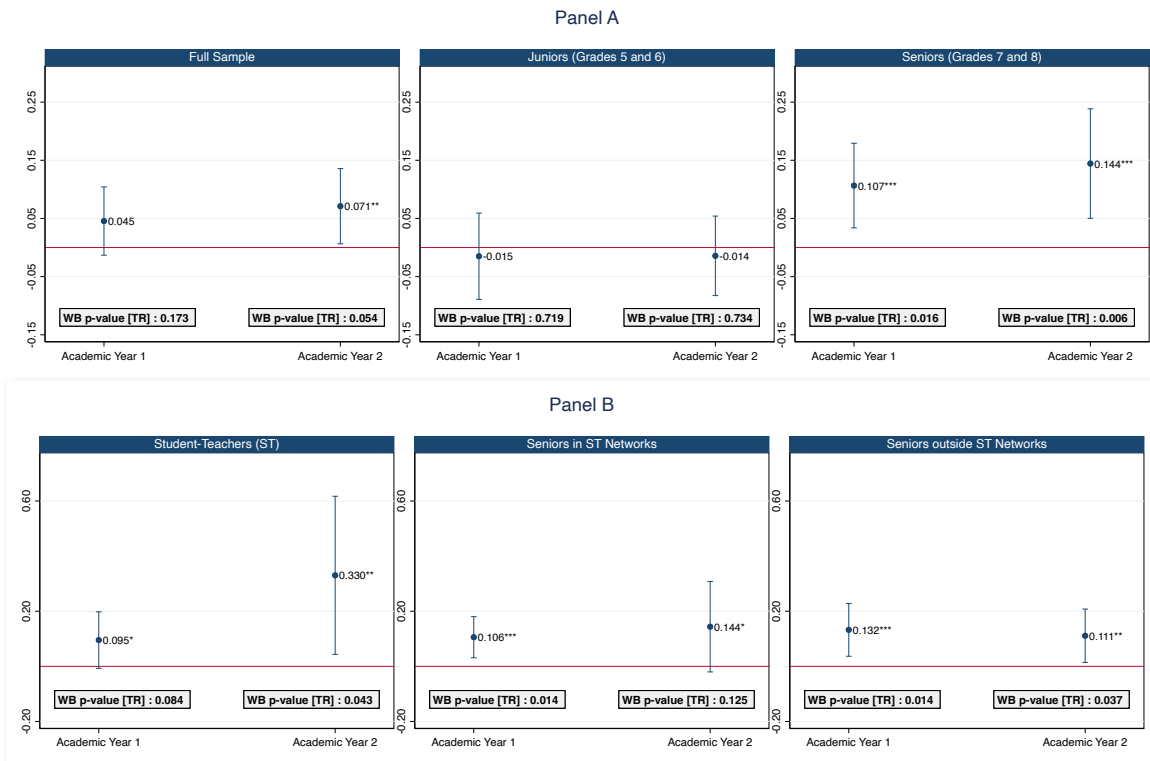
Notes: The figure plots the estimated treatment effects on transfer decisions in the third-party punishment game. The dependent variable is the number of tokens transferred from the opponent. Reported estimates are obtained from ordinary least squares (OLS) regressions. Regressions control for gender, age in months, baseline cognitive scores, class size, share of boys in class, school type fixed effects, and district fixed effects. “WB p-value [TR]” stands for wild bootstrapped p-value for the estimated treatment effects. The 95% confidence intervals are based on standard errors clustered at the school level (unit of randomization). Asterisks indicate that coefficient is statistically significant at the 1% , 5% , and 10% levels.

**Figure B18: Treatment Effects on Punishment of Unequal Transfers**



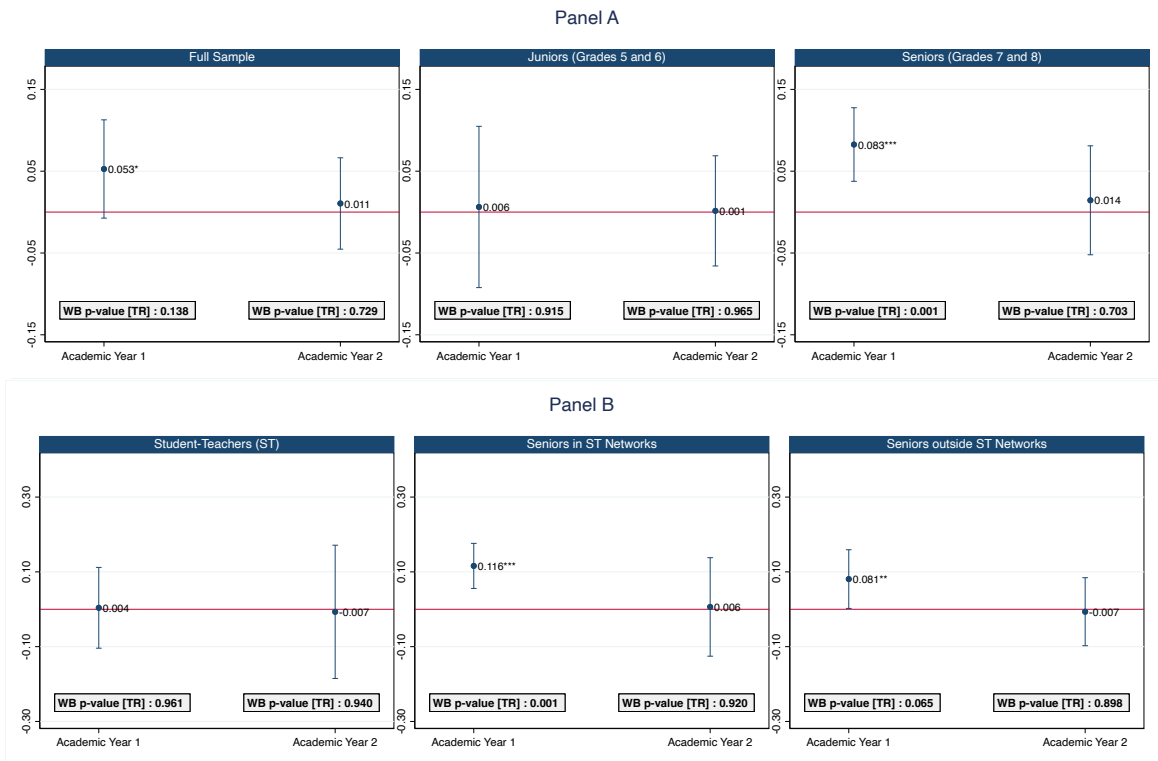
Notes: The figure plots the estimated treatment effects on punishment decisions in the third-party punishment game. The dependent variable is the number of tokens forgone to punish unequal transfers. Reported estimates are obtained from ordinary least squares (OLS) regressions. Regressions control for gender, age in months, baseline cognitive scores, class size, share of boys in class, school type fixed effects, and district fixed effects. “WB p-value [TR]” stands for wild bootstrapped p-value for the estimated treatment effects. The 95% confidence intervals are based on standard errors clustered at the school level (unit of randomization). Asterisks indicate that coefficient is statistically significant at the 1% , 5% , and 10% levels.

**Figure B19: Treatment Effects on Behavioral Norms**



Notes: The figure plots the estimated treatment effects on the perceived behavioral norms. The dependent variable is in standard deviation units, and the estimates are obtained from ordinary least squares (OLS) regressions. Regressions control for baseline behavioral norms, gender, age in months, baseline cognitive scores, class size, share of boys in class, school type fixed effects, school size, and district fixed effects. “WB p-value [TR]” stands for wild bootstrapped p-value for the estimated treatment effects. The 95% confidence intervals are based on standard errors clustered at the school level (unit of randomization). Asterisks indicate that coefficient is statistically significant at the 1% , 5% , and 10% levels.

**Figure B20: Treatment Effects on Perceived Adult Behavior**



Notes: The figure plots the estimated treatment effects on the perceived adult behavior. The dependent variable is in standard deviation units, and the estimates are obtained from ordinary least squares (OLS) regressions. Regressions control for baseline perceived adult behavior, gender, age in months, baseline cognitive scores, class size, share of boys in class, school type fixed effects, school size, and district fixed effects. “WB p-value [TR]” stands for wild bootstrapped p-value for the estimated treatment effects. The 95% confidence intervals are based on standard errors clustered at the school level (unit of randomization). Asterisks indicate that coefficient is statistically significant at the 1% , 5% , and 10% levels.

## X Attrition Analysis

**Table B15:** Characteristics of Absentees in Academic Year 1

	Full Sample	Juniors	Student-Teachers	Seniors in ST Networks	Seniors outside ST Networks
<b>Student Demographics:</b>					
Male	0.035*** (0.007)	0.033*** (0.010)	0.130*** (0.026)	0.053*** (0.014)	0.084*** (0.018)
Age in Months	0.007*** (0.001)	0.003*** (0.001)	0.004*** (0.001)	0.005*** (0.001)	0.006*** (0.001)
Siblings	0.003 (0.002)	0.006** (0.002)	-0.002 (0.006)	0.004 (0.004)	0.007 (0.005)
<b>Socio-emotional Well-being:</b>					
Locus of Control	-0.025*** (0.009)	-0.007 (0.009)	-0.063** (0.030)	-0.011 (0.013)	-0.043* (0.022)
Mental Well-being	-0.002 (0.007)	-0.006 (0.010)	-0.025 (0.023)	-0.010 (0.014)	-0.001 (0.020)
Perspective Taking	-0.009* (0.005)	-0.006 (0.007)	0.004 (0.025)	-0.001 (0.011)	-0.016 (0.018)
Impulse Control	-0.008 (0.007)	-0.006 (0.010)	-0.009 (0.025)	-0.032** (0.015)	-0.022 (0.018)
Sense of Belonging	-0.006 (0.005)	-0.005 (0.008)	-0.003 (0.017)	-0.001 (0.009)	-0.003 (0.015)
Sense of Responsibility	-0.003 (0.005)	-0.005 (0.005)	0.000 (0.015)	-0.003 (0.008)	0.017 (0.012)
<b>Cognitive Skills:</b>					
Math Score	-0.001 (0.003)	-0.002 (0.002)	0.004 (0.006)	0.002 (0.003)	-0.013** (0.006)
Turkish Score	-0.012*** (0.002)	-0.005** (0.002)	-0.012 (0.007)	-0.002 (0.004)	-0.002 (0.005)
Fluid IQ (Raven)	0.001 (0.002)	-0.004*** (0.001)	-0.008** (0.004)	-0.004** (0.002)	0.002 (0.003)
Emotional Intelligence (RMET)	-0.006*** (0.002)	-0.008*** (0.002)	0.004 (0.006)	-0.006* (0.003)	-0.007 (0.005)
Observations	19747	8432	1129	4613	2243

Notes: The table presents the characteristics of absentees of the first academic year for the full sample, junior sample and senior subgroups. The coefficients are obtained by regressing the dummy variable for absenteeism at endline on presented characteristics. Standard errors are clustered at the school level. Asterisks indicate that coefficient is statistically significant at the 1% \*\*\*, 5% \*\*, and 10% \* levels.



**Table B16:** Balance of Absentees - Full Sample in Academic Year 1

	Treatment Mean	Control Mean	p-value [TR=C]
Male	0.548	0.555	0.555
Age in Months	149.809	150.601	0.239
Siblings	3.487	3.934	0.164
Computer at Home	0.369	0.281	0.530
Internet at Home	0.663	0.555	0.341
Behavioral Norms	3.427	3.387	0.237
Perceived Adult Behavior	3.874	3.853	0.920
Experienced Anti-social Behavior	0.473	0.497	0.349
Having a Friend	0.732	0.687	0.556
Friendship Ties (in-degree)	2.505	2.255	0.524
Locus of Control	3.203	3.173	0.888
Mental Well-being	3.025	2.990	0.304
Perspective Taking	3.204	3.165	0.847
Impulse Control	2.839	2.820	0.422
Sense of Belonging	2.865	2.825	0.562
Sense of Responsibility	3.411	3.438	0.078
Math Score	3.908	3.459	0.243
Turkish Score	4.106	3.726	0.261
Fluid IQ (Raven)	12.719	11.880	0.451
Emotional Intelligence (RMET)	7.795	7.524	0.616

Notes: The table presents the baseline characteristics of absentees of the first academic year for treatment and control groups. “p-value [TR=C]” gives the p-value from the test of equality of the mean of respective variable across treatment and control. Equality tests use clustered-robust inference.

**Table B17:** Balance of Absentees - Juniors in Academic Year 1

	Treatment Mean	Control Mean	p-value [TR=C]
Male	0.552	0.557	0.855
Age in Months	134.431	136.140	0.170
Siblings	4.165	4.460	0.294
Computer at Home	0.277	0.207	0.110
Internet at Home	0.526	0.446	0.168
Behavioral Norms	3.508	3.488	0.851
Perceived Adult Behavior	3.794	3.822	0.414
Experienced Anti-social Behavior	0.553	0.589	0.189
Having a Friend	0.557	0.510	0.056
Friendship Ties (in-degree)	1.311	1.122	0.021
Locus of Control	3.073	3.022	0.320
Mental Well-being	2.989	2.954	0.353
Perspective Taking	2.974	2.947	0.658
Impulse Control	2.886	2.850	0.511
Sense of Belonging	2.762	2.768	0.647
Sense of Responsibility	3.205	3.289	0.077
Math Score	3.931	3.833	0.857
Turkish Score	4.393	4.111	0.497
Fluid IQ (Raven)	9.970	9.706	0.763
Emotional Intelligence (RMET)	6.554	6.519	0.933

Notes: The table presents the baseline characteristics of absentees of the first academic year for treatment and control groups for student-teachers and their networks. “p-value [TR=C]” gives the p-value from the test of equality of the mean of respective variable across treatment and control. Equality tests use clustered-robust inference.

**Table B18:** Balance of Absentees - Student-Teachers and Seniors in Student-Teacher Networks in Academic Year 1

	Treatment Mean	Control Mean	p-value [TR=C]
Male	0.613	0.613	0.934
Age in Months	153.761	154.146	0.214
Siblings	3.674	3.901	0.738
Computer at Home	0.335	0.290	0.841
Internet at Home	0.621	0.535	0.530
Behavioral Norms	3.398	3.361	0.496
Perceived Adult Behavior	3.821	3.817	0.542
Experienced Anti-social Behavior	0.488	0.467	0.477
Having a Friend	0.943	0.942	0.943
Friendship Ties (in-degree)	4.170	4.102	0.921
Locus of Control	3.212	3.219	0.410
Mental Well-being	2.991	2.959	0.432
Perspective Taking	3.255	3.241	0.607
Impulse Control	2.750	2.738	0.507
Sense of Belonging	2.920	2.885	0.680
Sense of Responsibility	3.417	3.480	0.169
Math Score	3.601	3.285	0.306
Turkish Score	3.725	3.482	0.604
Fluid IQ (Raven)	12.887	12.105	0.195
Emotional Intelligence (RMET)	7.944	7.679	0.355

Notes: The table presents the baseline characteristics of absentees of the first academic year for treatment and control groups for seniors outside student-teacher networks. “p-value [TR=C]” gives the p-value from the test of equality of the mean of respective variable across treatment and control. Equality tests use clustered-robust inference.

**Table B19:** Balance of Absentees - Seniors outside Student-Teacher Networks in Academic Year 1

	Treatment Mean	Control Mean	p-value [TR=C]
Male	0.568	0.566	0.973
Age in Months	157.852	159.809	0.158
Siblings	3.974	4.420	0.346
Computer at Home	0.258	0.284	0.258
Internet at Home	0.549	0.527	0.626
Behavioral Norms	3.346	3.294	0.452
Perceived Adult Behavior	3.778	3.800	0.587
Experienced Anti-social Behavior	0.469	0.466	0.786
Having a Friend	0.505	0.515	0.634
Friendship Ties (in-degree)	1.336	1.307	0.971
Locus of Control	3.137	3.056	0.256
Mental Well-being	2.964	2.939	0.708
Perspective Taking	3.096	3.042	0.849
Impulse Control	2.836	2.727	0.007
Sense of Belonging	2.724	2.679	0.591
Sense of Responsibility	3.367	3.369	0.663
Math Score	3.045	2.728	0.449
Turkish Score	3.340	3.036	0.456
Fluid IQ (Raven)	11.838	11.158	0.593
Emotional Intelligence (RMET)	7.684	6.937	0.063

Notes: The table presents the baseline characteristics of absentees of the first academic year for treatment and control groups for seniors outside student-teacher networks. “p-value [TR=C]” gives the p-value from the test of equality of the mean of respective variable across treatment and control. Equality tests use clustered-robust inference.

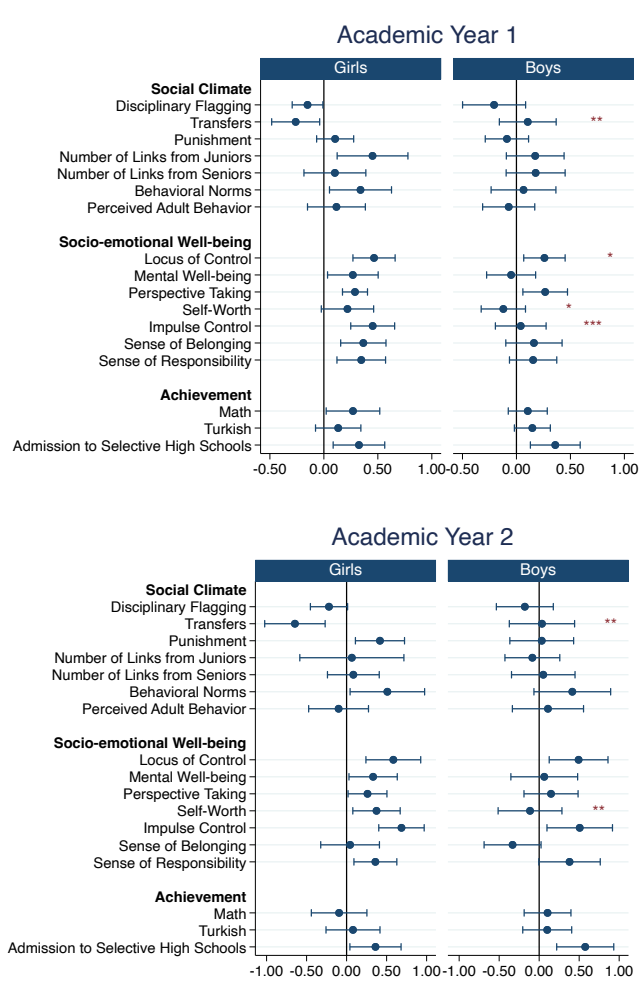
**Table B20:** Balance of Absentees - Full Sample in Academic Year 2

	Treatment Mean	Control Mean	p-value [TR=C]
Male	0.542	0.545	0.961
Age in Months	142.724	143.225	0.510
Siblings	3.495	3.795	0.522
Computer at Home	0.356	0.284	0.588
Internet at Home	0.668	0.597	0.536
Behavioral Norms	3.492	3.445	0.120
Perceived Adult Behavior	3.953	3.922	0.687
Experienced Anti-social Behavior	0.491	0.542	0.203
Having a Friend	0.725	0.717	0.751
Friendship Ties (in-degree)	2.695	2.572	0.824
Locus of Control	3.218	3.169	0.308
Mental Well-being	3.037	2.995	0.197
Perspective Taking	3.197	3.131	0.375
Impulse Control	2.872	2.866	0.982
Sense of Belonging	2.857	2.802	0.098
Sense of Responsibility	3.396	3.407	0.318
Math Score	3.911	3.543	0.294
Turkish Score	4.150	3.822	0.353
Fluid IQ (Raven)	12.311	11.562	0.360
Emotional Intelligence (RMET)	7.569	7.394	0.892

Notes: The table presents the baseline characteristics of absentees of the second academic year for treatment and control groups. “p-value [TR=C]” gives the p-value from the test of equality of the mean of respective variable across treatment and control. Equality tests use clustered-robust inference.

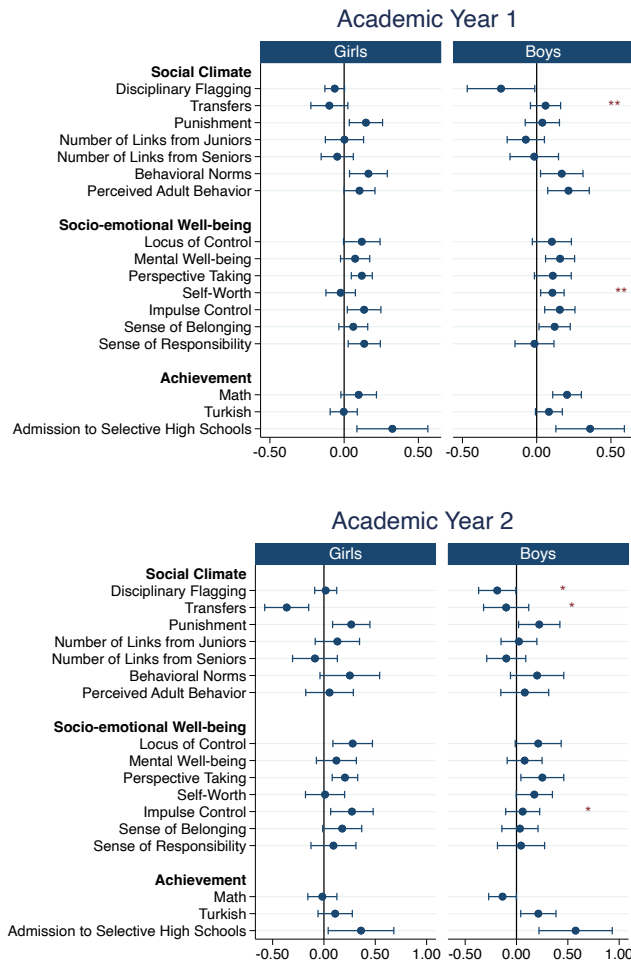
## XI Gender Heterogeneity in Treatment Effects

Figure B21: Gender Heterogeneity in Treatment Effects: Student-Teachers



Notes: The figure depicts the estimated treatment effects on all outcomes for female and male student-teachers. The 95% confidence intervals are based on standard errors clustered at the school level (unit of randomization). Asterisks indicate the significance of the difference in estimates at the 1% \*\*\*, 5% \*\*, and 10% \* levels. Regressions control for baseline values of the corresponding outcome when available, gender, age in months, baseline cognitive scores, school type fixed effects, and district fixed effects.

**Figure B22: Gender Heterogeneity: Seniors in Student-Teacher Networks**



Notes: The figure depicts the estimated treatment effects on all outcomes for female and male student-teachers' networks. The 95% confidence intervals are based on standard errors clustered at the school level (unit of randomization). Asterisks indicate the significance of the difference in estimates at the 1% \*\*\*, 5% \*\*, and 10% \* levels. Regressions control for baseline values of the corresponding outcome when available, gender, age in months, baseline cognitive scores, school type fixed effects, and district fixed effects.

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