



**Evaluating social innovation:
Results from a random-trial evaluation of a pilot project for the
inclusion of migrant adolescents**

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Presentation Outline

- Motivation
- «Oltre i Muri» project: Approach, research questions and target
- Counterfactual design
- Objectives and pedagogical approaches
- Measurement strategies
- Results



In Italy, the massive arrival of young migrants caused a critical situation in compulsory schools, where a large number of young migrants with no language skills is included in standard classes

This causes problems of social and educational integration

The Oltre i Muri Project **transfers a pedagogical model**, formerly experimented on bullies, on this new target



Students alternate standard school classes and vocational training.

At the VT center they attend:

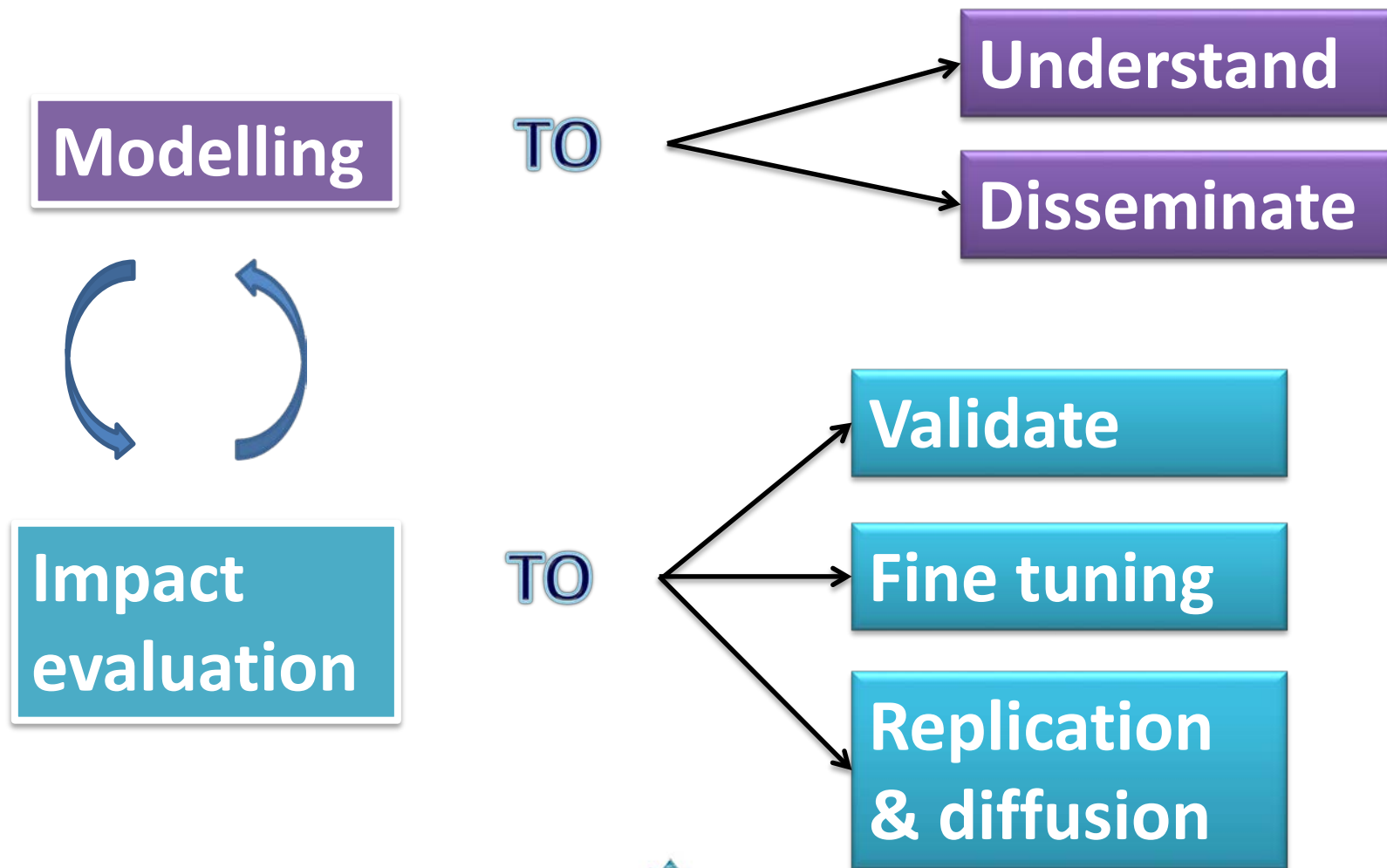
- Work-oriented laboratories (cooking, bartender, printing)
- Basic subject (Italian, English and Math) classes based on inductive pedagogical methods

- ✓ *Is the pilot effective in contrasting drop-out and early school leaving among migrant students?*
- ✓ *Does the pilot strengthen students' basic knowledge? Or rather does the pilot hinder students' learning, since they miss school classes?*
- ✓ *Is the pilot effective in improving students' social integration?*
- ✓ *Does the pilot improve students' relationships with peers and adults?*
- ✓ *Does the pilot strengthen students' soft skills?*

- ✓ Young migrants recently arrived in Italy
- ✓ included in public lower-secondary schools ...
- ✓ ... but not fully integrated because of low language skills
- ✓ Hence facing high risk of
 - Drop-out
 - Low scholastic performance
 - Bullying behaviour (active/passive)



Evaluation as an operative instrument



We opted for an experimental approach (random block assignment):

- Large risk of selection bias (unobservable)
- No matching variables available ex-ante
- (Very) small sample

The impact is estimated by Diff-in-Diff approach:

- Measuring changes in the objective variables from the beginning to the end of the treatment (treated vs. control group)

Implementation problems:

- Implementation carefully planned from the very beginning
- Unexpressed opposition by VET operators



Counterfactual design

The sample

	Assignment group			
Block	Treated	Non treated	Attrition (ex ante)	Tot. block
CPIA	4	8	1	13
School	11	10	1	22
Tot. group	15	18	2	35

- ✓ Teachers recommended 43 migrant students
- ✓ VET operators selected 35 eligible students (school & CPIA)
- ✓ Due to high heterogeneity: randomization block design
- ✓ Random ex-ante attrition
- ✓ Final evaluation on school students (11 treated vs. 10 controls) due to CPIA students missing data

Direct objective:
Socio-scholastic
inclusion

Indirect objective:
Learning and school
performance



General objective (outcome):
Scholastic success
Drop-out prevention

Socio-scholastic inclusion

Soft (character) skills reinforcement, which affects social inclusion and labour market outcomes (Heckman and Kautz, 2012)

- Reverse didactical approach
 - Individual taking charge
 - Cooperative learning
- Peer-to-peer and young-to-peer

Socio-scholastic inclusion

Soft (character) skills, measured by:

- hetero-evaluation questionnaire (teachers)
- Self-evaluation psychometric test (Big Five approach, Mackiewicz and Ciecuch 2016)
- Indicators from school registers (disciplinary notes, absences, lateness)

Challenge:
**Overcome the
linguistic barriers**

Solution:
Pictographic
questionnaire

Solution:
Refer to normal
teen-ager
situations

Challenge:
**Avoid acquiescence
(sense of value)**

Challenge:

Adopt a comprehensive but structured approach that can be used for quantitative evaluation

Solution:

Refer to “the big five” as predictors for social inclusion (OCEAN):

- Openness,
- Conscientiousness,
- Extraversion,
- Agreeableness,
- Neuroticism

In my free time I like to...



Discover new things

Always	More often	Equally	More often	Always
so	so		so	so
++	+	=	+	++



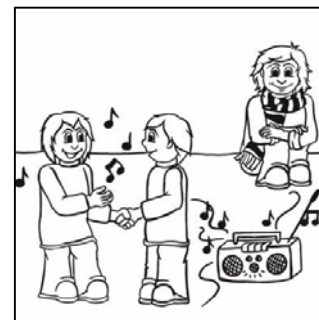
Rest

When I see somebody having fun ...



I join them

Always	More often	Equally	More often	Always
so	so		so	so
++	+	=	+	++



I don't join them

Big Five questionnaire (Maćkiewicz e Ciecuch, 2016) 15 items (3x5)

✓ **Before the project ...**

Non treated students show significantly better traits w.r.t. treated students (+ extraversion, + agreeableness, - neuroticism)

✓ **After the project ...**

No significant differences are retrieved (the disadvantage disappeared)

A **significantly positive impact** is observed in **extraversion**, which is the trait that **favours classroom integration**

Personality trait	DID approach
	ATE
O: Openness	0,10
C: Conscience	1,32
E: Extraversion	2,89*
A: Agreeableness	0,28
N: Neuroticism	-0,61

Learning and school performance

Basic knowledge (Italian, Math, English) reinforcement
by means of school – VET alternation path

- Work-oriented laboratorial didactic
- Learning by doing

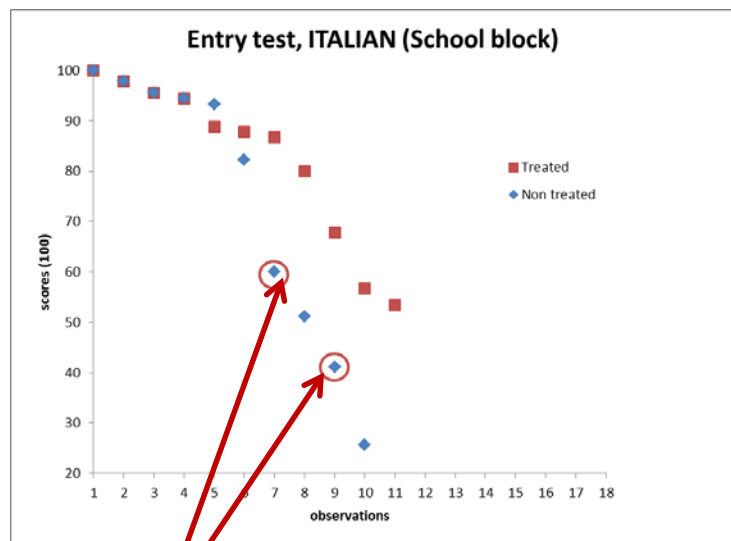
Learning and school performance

Basic knowledge, measured by:

- Specific tests administered at the beginning and at the end of the pilot
- School grades



Main problem: drop-out of two students in the counterfactual sample



Drop-out students

ATE bounds (-3.2, +6.2)

Test scores: 1-100

No disadvantage for treated

- Estimation bias solved by extreme value bound techniques (Manski, 1999)
- Missing outcomes filled with the highest (lowest) possible outcome to estimate the upper (lower) ATE bound
- Taking advantage of preliminary pre-test information
- Missing outcomes filled at first with the highest and then with the lowest post-pre gap observed in the counterfactual group

Scholastic success and drop-out prevention

Measured by:

- School attendance rate

At the end of the pilot, all the 11 treated students do still attend school,
while 2 over 10 non treated students dropped-out

The treatment effect (TE) is measured by the difference in school attendance rates between the treated and the control samples

$$TE = \frac{11}{11} - \frac{8}{10} = 0,2$$

The attendance rate is 20% higher in the treated sample

Is this a random result?

Randomization inference by a Montecarlo permutation test (100000 permutations) shows that this is a project outcome with the 80% confidence level (p-value=0.2168)