

Pre-Analysis Plan
for
”The Role of Evidence in Policy Adoption”

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1 Introduction

1.1 Abstract

This study examines whether providing information on the evidence behind a program increases its adoption by government officials. To test this, we exploit the nationwide scale-up of an education campaign in the Dominican Republic and randomly vary whether school officials receive information on the existing evidence of the impact of the program. A treatment arm with financial incentives acts as a benchmark. Further, we analyze whether technical assistance and additional reminders increase take-up.

1.2 Motivation

The slow adoption of successful policies that are supported by rigorous scientific evidence is a puzzle across developing countries. A large body of academic studies tries to explain the persistence of the policy-evidence gap by pointing towards overworked government officials, missing incentives, and lack of knowledge and resources (Cairney and Kwiatkowski, 2017; Elliott and Popay, 2000; Finan et al., 2017). This study aims to shed light on this question by examining whether providing information on the impact of a program alone increases its take-up. It also adds to the growing literature on barriers to innovation adoption. For example, Atkin et al. (2017) find that a misalignment in incentives can lead to a low take-up of a cost-saving technology by workers.

1.3 Background

This study is based on the national roll-out of the Aprendiendo el Valor de la Educación (AVE) program. AVE is an at-scale evaluation of interventions that use videos to present accurate and clear information on the potential benefits and costs of schooling to 7th through 12th-grade students in the Dominican Republic. The program was piloted in 25 percent of all public middle schools in 2015 and was extended to 50 percent of all public middle schools in 2016. Berry, Coffman, Morales, and Neilson (2018) shows that AVE significantly increases test scores and reduces drop-out rates of participating schools.

The Ministry of Education of the Dominican Republic has decided to scale up the AVE program in the 2018-19 academic year. The scaled-up version will be similar to the one tested before, but its delivery to schools will change. While the school directors in the pilot were personally trained and incentivized to implement the program, the scale-up will rely on directors following an implementation protocol. All directors in the country will receive an email with links to the videos, and with precise implementation instructions. All school directors will also receive a phone call to confirm that they received the email.

The week of September 20-24 has been denominated the AVE week and has the aim of showing the AVE videos to every student enrolled in 7th grade or above. The idea is to introduce the program as part of the school's regular activities.

2 Experimental Design

2.1 Intervention

With the aim of maximizing the number of schools taking-up the program, we are interested in evaluating the performance of four interventions on top of the email.

In a first experiment, 50% of the directors will receive information about the results of the AVE pilot. This treatment is expected to encourage directors to implement AVE by highlighting the existing evidence of the impacts of the program. To measure spillover effects for this treatment, districts will be evenly divided into high share-districts (67%) and low share-districts (33%).

In a second experiment, 18.75% of the directors will receive a financial incentive in form of a lottery. This treatment is expected to serve as a benchmark and comprises the random distribution of 50 tablets among directors who show the videos to the students and upload a photo of the event to the AVE website (as specified in the instructions in the email).

In a third experiment, 25% of the directors will receive additional reminders from a call center organized by the Ministry of Education. This includes a second email and second call two weeks after the initial email was sent out. Finally, if the director did not download the videos by September 24, he will receive a third email and a third call on September 25, reminding him to show the videos. This intervention is denoted as “high-intensity”.

In a fourth experiment, 50% of the directors will receive information on the assistance that the ministry provides to help schools to implement the program. This includes the telephone number to a helpline and a link to a website with further information.

With the exception that the high-intensity group will never receive the financial incentive, the four treatments will be perfectly cross-randomized.

This results in the following 12 treatment cells:

Cell 1:	letter only
Cell 2:	letter + information on evidence
Cell 3:	letter + financial incentive
Cell 4:	letter + high intensity
Cell 5:	letter + assistance
Cell 6:	letter + information on evidence + financial incentive
Cell 7:	letter + information on evidence + high intensity
Cell 8:	letter + information on evidence + assistance
Cell 9:	letter + financial incentive + assistance
Cell 10:	letter + high intensity + assistance
Cell 11:	letter + information on evidence + financial incentive + assistance
Cell 12:	letter + information on evidence + high intensity + assistance

2.2 Sample

The sample consists of all schools in the Dominican Republic that satisfy the following criteria:

- had at least one student enrolled in at least one secondary school grade (grades 7-12) in the academic year 2017-2018.
- had at least 10 students enrolled across all secondary school grades in the academic year 2016-17.¹
- either took the 8th grade National Exam in 2016 or the 12th National Exam in 2018.²
- had a validated telephone number by August 14.

If a director supervises more than one school that fits these criteria, one school is chosen randomly. The resulting sample consists of 3,620 schools.

3 Outcomes and Comparisons

3.1 Primary Outcome

The primary outcome of this study is whether the school director implemented the AVE program at his school. We will attempt to measure this in two ways. First, we will measure whether the director uploads evidence of completion as required in the program instructions. Second, we will attempt to acquire independent validation of this through student surveys, although the feasibility of doing so is not clear at the time of this registration.

¹Since the final enrollment data for 2017-18 will not be available by the start of the survey, we also rely on the data from the previous year.

²The 8th grade National Exam was abolished after 2016.

3.2 Secondary Outcomes

The secondary outcomes – which are better thought of as intermediate steps rather than separate outcomes – are whether the director clicked on the landing page in the email, and whether they downloaded the videos.

3.3 Primary Comparisons

1. Evidence versus no evidence
2. Incentive vs. no incentive
3. Low vs. high intensity

3.4 Secondary Comparisons

1. Incentive vs. evidence
2. Control vs. incentive vs. evidence vs. incentive + evidence
3. Technical assistance vs no technical assistance
4. Control vs. assistance vs. evidence, vs. assistance + evidence
5. High evidence share vs. low evidence share (spillover effects)

4 Estimation Strategy

4.1 Intention-To-Treat (ITT) Effects

The primary treatment effects of interest will be estimated by calculating the intent-to-treat (ITT) estimate of take-up via OLS:

$$Y_i = \beta_{ITT}T_i + \gamma X_i + \alpha_i + \epsilon_i \quad (1)$$

where Y denotes the outcome for director i , T is an indicator for the treatment assignment, X is a set of baseline covariates selected via the double lasso approach by Belloni et al. (2014), α are stratification dummies, and ϵ is an individual error term.

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