

Pre-Analysis Plan for:
“The Role of Feedback and Motivation in Policy Adoption”

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1 Introduction

1.1 Abstract

This study examines whether providing motivation and personalized feedback can improve the performance of government officials. In our setting, school directors from all public schools in the Dominican Republic were told to execute a specific task. We randomly varied the ways in which the instructions were given to test whether motivation and personalized feedback on previous task performance can increase the task execution.

1.2 Motivation

Public employees play a central role in economic development and the implementation of government policies. However, information asymmetries, missing incentives, and lack of monitoring are important barriers to successful implementation (Cairney and Kwiatkowski, 2017; Finan et al., 2017). In the context of schools directors in the Dominican Republic, this project examines how increased feedback and monitoring, and motivational messages affect their performance.

1.3 Background

This study is based on the national roll-out of the “Declaración por la Paz” program. In response to the increasing rates of bullying and violence in schools, the Ministry of Education launched the “Declaración por la Paz” initiative that promoted good treatment across students and teachers by raising awareness of the problem and engaging school directors in this mission. The campaign consisted in making every student read and sign a declaration in which they committed to respect others and to reduce bullying. Every classroom should also create a mural with phrases and content relative to good treatment.

School principals will receive an email with precise instructions on how and when implement the campaign. All the relevant material will be attached in the email. Students in all schools have to sign the declaration on Friday November 23rd. To prove that they complied with the campaign directors need to fill an implementation form that they need to email back to the Ministry. They are also requested to take pictures of all the classrooms murals and of students signing the declaration. The deadline to send the pictures and form is Friday November 30th.

2 Experimental Design

2.1 Intervention

This project is based on an anti-bullying campaign that was implemented as part of the “Month of Peace” in all secondary schools in the country. In order to scale the policy, the Ministry of Education sent an email to 2,724 secondary school principals with precise instructions on how to implement the

project. We cross-randomize three different experiment (in the form of several treatment arms) that aim to increase the number of schools executing the task mandated by the Ministry.

In a first experiment, directors were split into two sub-samples based on their past performance. In September 2018, school directors were asked to pass a series of videos that provided students with information about the returns to finishing high-school. Only 53% of the 2,724 school principals successfully implemented the program. We refer to principals who complied and not complied as “Good Principals” and “Bad Principals” respectively. Within each of these samples, we randomly select 50% of them and provide them with personalized feedback regarding their past completion rates. We also stress the fact that the government will again monitor their behavior. This treatment intends to highlight the increase the perception of monitoring and accountability.

The positive feedback message reads as: *According to our records, your school successfully implemented the Learning the Value of Education campaign (AVE-RD). We thank you for your participation, and we urge you to also participate in the "Declaration for Peace". Again we will be monitoring compliance with this instruction, to ensure that this campaign is implemented properly.*

The negative feedback message reads as: *According to our records, your school did not satisfactorily implement the previous campaign Learning the Value of Education (AVE-RD). We urge you to participate in the "Declaration for Peace" on this occasion. Again we will be monitoring compliance with this instruction, to ensure that this campaign is implemented properly.*

In a second experiment, 50% of the directors will receive a special motivation text remarking the importance of the task that they are required to perform. This treatment is expected to induce more prosocial principal to increase the take up of the task. The message reads as: *The school climate is an important factor that promotes learning. The school climate is something that can be managed, and the "Declaration for Peace" can contribute to this end. Be part of the solution and let's help together to reduce bullying and bad treatment at school.*

In a third experiment, 50% of the directors will receive two additional reminders from a call center organized by the Ministry of Education. The rest of the directors won't be reached out by phone. This intervention is denoted as “high-intensity”.

The three treatments will be perfectly cross-randomized. This results in the following 12 treatment cells:

Cell 1:	Email
Cell 2:	Email + Intensity
Cell 3:	Email + Motivation
Cell 4:	Email + Positive Feedback
Cell 5:	Email + Negative Feedback
Cell 6:	Email + Intensity + Motivation
Cell 7:	Email + Intensity + Positive Feedback
Cell 8:	Email + Intensity + Negative Feedback
Cell 9:	Email + Motivation + Positive Feedback
Cell 10:	Email + Motivation + Negative Feedback
Cell 11:	Email + Intensity + Motivation + Positive Feedback
Cell 12:	Email + Intensity + Motivation + Negative Feedback

2.2 Sample

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

- 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, 2018
- Had a validated email by August 14, 2018

If a director supervises more than one school that fits these criteria, one school is chosen randomly. The resulting sample consists of 2,724 schools.

3 Outcomes and Comparisons

3.1 Primary Outcome

The primary outcome of this study is whether the school director implemented the “Declaración por la paz” 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, directors were required to send pictures of students performing the task to a phone number of the Ministry. Both, uploads and pictures will be recorded by a team of enumerators.

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 email attachment containing the instructions of the task.

3.3 Primary Comparisons

1. Motivation versus no motivation
2. Positive feedback vs. no feedback
3. Negative feedback vs. no feedback
4. Low vs. high intensity

3.4 Secondary Comparisons

1. Intensity vs. motivation
2. Motivation vs. positive feedback
3. Motivation vs. negative feedback
4. Motivation vs. positive feedback + intensity
5. Motivation vs. negative feedback + intensity
6. Positive feedback vs. positive feedback + intensity
7. Negative feedback vs. negative feedback + intensity

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:

$$Y_i = \beta_{ITT}T_i + \gamma X_i + \alpha_i + \epsilon_i \tag{1}$$

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.

References

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