Nudging effort to accurately measure student learning in the Dominican Republic: SIEF-funded Nimble Evaluation

World Bank: Melissa Adelman, Juan Baron
UChicago: John List, Ty Turley
In collaboration with the Ministry of Education (MINERD)

December 2018
Motivation - global

- Many developing countries are taking steps to expand and strengthen their learning assessment systems
- In LAC, many countries are replacing their high-stakes assessments with diagnostic assessments
- With strong encouragement from the WB – the first message of the 2018 WDR: “Assess learning to make it a serious goal”
- Performance on such assessments reflects a combination of knowledge accumulated up to the test and effort on the test itself
- Very recent evidence suggests large variation in both across countries (Akyol, Krishna, Wang 2018; Gneezy et al 2017)
Motivation – local

- The Dominican Republic had the lowest average scores in both TERCE 2013 and PISA 2015
- In 2014, embarked on an ambitious education reform agenda, with low-stakes, diagnostic student learning assessments at its core
- Want to ensure that assessments are accurately measuring student learning, and at the same time, find cost-effective ways to help students learn more
This evaluation – main research questions

• Can students be nudged to put in more effort to the exam itself? How much (if at all) does that change the test results?
  • Several RCTs have shown that external incentives and framing can affect student performance on otherwise low-stakes tests (Duckworth et al 2011; Levitt et al 2016; etc)

• Can students be “nudged” into putting more effort into schoolwork ahead of the assessment? How much (if at all) does that change the test results?
  • RCT evidence that small psychological interventions can impact test scores months later (Growth Mindset in Peru – Outes et al 2017; Values-affirmation in US – Cohen et al 2009)
This evaluation - design

9th grade learning assessment to be applied in late May 2019: randomize public schools across 6 treatment arms and 1 control group

“Early” intervention: 6-8 weeks prior to test
- Growth mindset
- Self-affirmation
- External incentive

“Late” intervention: 1-7 days prior to test
- Growth mindset
- Self-affirmation
- External incentive

Control
This evaluation – design – this is nimble?!

- Interventions are “self-explanatory” – teachers receive the written information in envelopes and execute the instructions to the best of their ability *(with some accountability for implementation)*

- Leveraging MINERD’s existing “testing infrastructure” – national network of ministry technical staff and processes – interventions will only add an envelope of papers to their distribution load

- No incremental data collection – rely on randomization and comparison of groups using administrative data; 9th grade assessment is censal *(with minor adjustment of complementary questionnaires)*
What we will do with the results

- Scale up nudges that work – incorporate motivational activities into teacher training; adjust how assessments are presented to stakeholders (motivate to take them more seriously)

- Informative null results – either nudges are not enough change effort (unlikely given existing evidence), or students are already exerting near maximal effort – low scores are an accurate measure of student knowledge
Gracias!