Data Description

One Laptop per Child at Home: Short-Term Impacts from a Randomized Experiment in Peru

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March 2014

Overview

The data used in this study are from a field experiment with primary schoolchildren attending second to sixth grades in Lima, Peru. We collected primary data from school based surveys on independently designed tests and questionnaires as described in the main paper and whose instruments and complete datasets we make publicly available in this folder. We also used math and reading test scores for second grade students obtained from administrative data on individual-level standardized tests from the Student Census Evaluation (ECE) of November 2011 conducted by the Peruvian Ministry of Education. However, this dataset was obtained under a confidentiality agreement and, therefore, we are unable to make it publicly available. Nonetheless, the programs we provide below include the scripts used in processing and analyzing both the public and the restricted datasets; so that they may be useful for conducting a similar experiment and analysis. For additional details, please contact one of us.

This document describes the underlying raw data, instruments, as well as the programs which were used to merge the data, create variables, and perform the analysis.

Instruments

The folder "data\Instrumentos\Ronda1" contains all instruments applied at baseline. These include:

1. ***Standardized reading tests.*** Applied to students from 2nd to 6th grade – there are different pdf files for each grade. In addition, for grades 2nd and 3rd we have two exam forms containing the same questions but in different order to prevent cheating. The files are named as "Reading_X.pdf"; where X refers to the grade. For 2nd and 3rd grade, file names denote the form of the exam by adding FX at the end of the file name; where X refers to the form number of the exam.

2. ***Standardized math tests.*** Applied to students from 2nd to 6th grade – there are different pdf files for each grade. In addition, for grades 2nd and 3rd we have two exam forms containing the same questions but in different order to prevent cheating. The files are named as "Math_X.pdf"; where X refers to the grade. For 2nd and 3rd grade, file names denote the form of the exam by adding FX at the end of the file name; where X refers to the form number of the exam.

3. ***Student questionnaire.*** Applied to students from 3rd to 6th grades. File names are "Student_PX.pdf"; where X refers to the section of the questionnaire as it was divided in two sections.

4. ***Teacher report***. Instrument used to obtain teachers' perceptions of their students – Teacher_Report.pdf.

The folder "data\Instrumentos\Ronda2" contains instruments applied at follow-up. These include:

1. ***Student questionnaire.*** Applied to students from 3rd to 6th grades. File names are "Student_PX.pdf"; where X refers to the section of the questionnaire as it was divided in two sections.

2. ***Teacher report***. Instrument used to obtain teachers' perceptions of their students – Teacher_Report.pdf.

3. ***XO test***. Objective test on digital skills pertaining to the OLPC XO laptop – XO_test.pdf

Data Sources

The folder "data\Auxiliares" contains auxiliary databases used in the analysis. These include:

1. ***listas_final.dta.*** Dataset containing individual student ids and their status with respect to lottery participation and whether a XO laptop was obtained.

2. ***school_pairs_final.dta.*** Dataset containing school ids, the school pair each school belongs to and the treatment status.

The folder "data\Finales" contains the following dataset:

1. ***table_stlima_logs.dta.*** Dataset containing student level XO utilization data extracted from computer logs.

The folder "data\Originales\Ronda1" contains the raw datasets corresponding to the instruments applied at baseline. These include:

1. ***cestudiante_g3-6_p1_r1.dta.*** Raw dataset of the first section of the student questionnaire (3rd to 6th grades)
2. ***cestudiante_g3-6_p2_r1.dta.*** Raw dataset of the second section of the student questionnaire (3rd to 6th grades)
3. ***lectora_g2_f1_r1.dta.*** Raw dataset of the reading test for 2nd grade students (form 1)
4. ***lectora_g2_f2_r1.dta.*** Raw dataset of the reading test for 2nd grade students (form 2)
5. ***lectora_g3_f1_r1.dta.*** Raw dataset of the reading test for 3rd grade students (form 1)
6. ***lectora_g3_f2_r1.dta.*** Raw dataset of the reading test for 3rd grade students (form 2)
7. ***lectora_g4_r1.dta.*** Raw dataset of the reading test for 4th grade students.

8. ***lectora_g5_r1.dta.*** Raw dataset of the reading test for 5th grade students.
9. ***lectora_g6_r1.dta.*** Raw dataset of the reading test for 6th grade students.
10. ***logico_g2_f1_r1.dta.*** Raw dataset of the math test for 2nd grade students (form 1)
11. ***logico_g2_f2_r1.dta.*** Raw dataset of the math test for 2nd grade students (form 2)
12. ***logico_g3_f1_r1.dta.*** Raw dataset of the math test for 3rd grade students (form 1)
13. ***logico_g3_f2_r1.dta.*** Raw dataset of the math test for 3rd grade students (form 2)
14. ***logico_g4_r1.dta.*** Raw dataset of the math test for 4th grade students.
15. ***logico_g5_r1.dta.*** Raw dataset of the math test for 5th grade students.
16. ***logico_g6_r1.dta.*** Raw dataset of the math test for 6th grade students.
17. ***matrices_g3-6_r1.dta***. Raw dataset of the Raven's Progressive Matrices test (3rd to 6th grades)
18. ***percepciondocente_g3-6_r1.dta***. Raw dataset of teachers' perceptions (3rd to 6th grades)

The folder "data\Originales\Ronda2" contains the raw datasets corresponding to the instruments applied at follow-up. These include:

1. ***cestudiante_g3-6_p1_r2.dta.*** Raw dataset of the first section of the student questionnaire (3rd to 6th grades)
2. ***cestudiante_g3-6_p2_r2.dta.*** Raw dataset of the second section of the student questionnaire (3rd to 6th grades)
3. ***matrices_g3-6_r2.dta***. Raw dataset of the Raven's Progressive Matrices test (3rd to 6th grades)
4. ***percepciondocente_g3-6_r2.dta***. Raw dataset of teachers' perceptions (3rd to 6th grades)
5. ***xo_g3-6_r2.dta***. Raw dataset of the objective OLPC XO test. (3rd to 6th grades)

NOTE 1: The folder "data\Intermedias" is empty but will be required when running the programming files described below. If this folder is removed, the programming files will not run adequately.

NOTE 2: The folder "data\Resultados" is empty but will be required when running the programming files described below. This folder will store the replicated tables after running the programming files. If this folder is removed, the programming files will not run adequately.

Programming Files

There are five main programs used for the analysis, all included in this "data" folder.

1. **ece_r2.do**. This file processes the raw dataset of the confidential administrative data on individual-level standardized tests from the Student Census Evaluation (ECE) of November 2011 conducted by the Peruvian Ministry of Education. Since we are unable to share this dataset, this file cannot be run.

2. **input_r1.do**. This file creates all the baseline variables and indicators for the analysis.

3. **input_r2.do**. This file creates all the follow-up variables and indicators for the analysis.

4. **tables_stlima.do**. This file merges baseline and follow-up variables. In addition, it generates all tables of the paper.

5. **table_stlima_logs.do**. This file replicates Appendix Table 1 using data from computer logs.

Replication Instructions

To replicate all tables of the paper, follow these steps:

1. Copy this "data" folder to your C:\ drive.
2. First, execute the programming file "input_r1.do".
3. Second, execute the programming file "input_r2.do".
4. Third, execute the programming file "tables_stlima.do".
5. All tables will be stored in the folder "data\Resultados"

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