Bangladesh - Take-Up, Use, and Effectiveness of Remote Technologies Impact Evaluation 2020-2021

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Identification

SURVEY ID NUMBER

BGD_2020-2021_TUUERT-IE_v01_M

TITLE

Take-Up, Use, and Effectiveness of Remote Technologies Impact Evaluation 2020-2021

ABBREVIATION OR ACRONYM

TUUERT-IE 2020-2021

COUNTRY/ECONOMY

Name	Country code
Bangladesh	BGD

STUDY TYPE

Other Household Survey [hh/oth]

SERIES INFORMATION

This impact evaluation consists of three rounds of data collection: a baseline survey conducted in 2020-2021, as well as two follow-up surveys conducted in 2021. The full study is documented here.

ABSTRACT

This data is collected from a field experiment with households of secondary school students in Bangladesh to investigate how parents adjust educational investments in response to three interventions to improve remote education access: information about an educational technology (EdTech) tool, an internet data package, and teacher phone support. We hypothesize the presence of multiple barriers to remote education, particularly among lower-income families: parents and children may not be aware of remote learning options, the cost of accessing activities that require the internet may be too high, and limited contact with an instructor may reduce student motivation. We test the impact of four interventions - two targeting information constraints and two targeting price constraints - designed to alleviate these constraints and measure their impact on student and parental engagement and learning in the short and medium run.

KIND OF DATA

Sample survey data [ssd]

UNIT OF ANALYSIS

Child, parent, household

Version

VERSION DESCRIPTION

v01: Edited, anonymized dataset for public distribution

VERSION DATE

2026-03-01

Scope

NOTES

This study covers topics related to three interventions to improve remote education access: information about an educational technology (EdTech) tool, an internet data package, and teacher phone support.

KEYWORDS

Human capital Parental investments Educational technology Educational inequality Remote education Randomized controlled trial Bangladesh

Producers and sponsors

PRIMARY INVESTIGATORS

Name	Affiliation
Emily Beam	University of Vermont
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Laia Navarro-Sola	Institute for International Economic Studies, Stockholm University

FUNDING AGENCY/SPONSOR

Name	Abbreviation
Strategic Impact Evaluation Fund	SIEF

Sampling

SAMPLING PROCEDURE

Because the interventions are useful only to those who have access to the requisite technology, our baseline phone sample consists of 7,576 respondents that have (a) at least one child in grades 6–10 (grades 7–11 in January 2021) and (b) have at least one smartphone in the house. While mobile phone penetration in Bangladesh is fairly high, smartphone ownership is substantially lower, meaning that our study sample is not nationally representative. Estimates in 2022 put individual-level smartphone ownership at 41% (Okeleke, 2021), although rates of access are likely higher given that device sharing is common in Bangladesh (Ahmed et al., 2017).

To maximize our ability to reach families from varying socioeconomic backgrounds, our sampling frame drew from three sources: (1) a random-digit-dialing (RDD) sample of 30,000 numbers from the most popular telecommunications company in Bangladesh; (2) the database of recipients of the Secondary School Stipend (SSS) Programme, who tend to be from lower-income households; and (3) a database of users registered on a government-created online learning platform that preceded the COVID-19 pandemic. While the RDD sample aims, by design, to be nationally representative of the smartphone ownership population, the secondary school stipend sample includes a higher share of lower-income households, and the last sample includes households potentially more inclined to use educational technologies during school closures. We first screened numbers by sending a test SMS message and removing any numbers for which the message was not delivered. Overall, 7,576 respondents completed a baseline survey, about 19% of numbers attempted, or 29% of those who answered the phone (see Appendix Table A.1 for more detail). Respondents are distributed broadly across the country (see Appendix Figure A.2). We randomized all baseline respondents into treatment, but we further restrict our sample to the 97% (7,313 households) who agreed to be recontacted for follow-up surveys.

Additional details on sampling can be found in the midline and endline reports, as well as the "Lowering Barriers to Remote

Education: Experimental Impacts on Parental Responses and Learning" working paper, all available to download.

Survey instrument

QUESTIONNAIRES

The baseline, midline, and endline questionnaires can be found on pages 63-107 of the "Take-Up, Use, and Effectiveness of Remote Technologies, Endline Report," available to download. The codebooks for all the surveys are also provided in English and Bangla and are available to download as well. They include all survey questions along with response choices.

Data collection

DATES OF DATA COLLECTION

Start	End	Cycle
2020-11-18	2021-02-05	Baseline
2021-03-11	2021-04-05	Follow-up 1
2021-05-06	2021-06-23	Follow-up 2

DATA COLLECTION MODE

- Computer Assisted Personal Interview [capi]

DATA COLLECTION NOTES

We recruited and conducted a baseline survey with households by phone in September–October 2020. We targeted the caregivers of children in grades 6–10 in the household, with a nearly even split between female and male caregivers at 49% and 50%, respectively. For those who met the screening criteria, we asked about demographics, family socioeconomic status, current student educational activity, parent expectations, and aspirations for their children’s schooling.

We launched the three sets of interventions shortly after completing the baseline survey. We delivered informational interventions weekly for eight weeks, beginning February 24. On March 1, we distributed the initial invitation for the data subsidy, which would last for one month. We launched the teacher intervention simultaneously with the informational interventions, which lasted four weeks for each student.

The sampling frame for our first follow-up survey (Round 1), conducted while the interventions were ongoing, comprised all 7,313 baseline households that agreed to be recontacted. We again targeted parents, conducting 43% of surveys with mothers, 39% with fathers, and 17% with another family member, usually a child’s older sibling. We surveyed 3,775 households, 55.8% of those contacted, representing 3,881 children.

Our second follow-up survey (Round 2) took place approximately 4 to 8 weeks after the interventions concluded to measure the persistence of treatment effects. The potential sampling frame again included the 7,313 baseline households that agreed to be recontacted, from which we conducted a random subsample due to budget constraints. We also randomized the order in which we contacted households.

During this wave, we also separately interviewed children to measure their engagement and aspirations and also to assess their learning. Secondary school teachers created a bank of mathematics test questions aligned with the grade-specific national curriculum, since mathematics is included in the high-stakes SSC exams and is taught in all secondary grade levels and curriculum tracks. The questions were designed to be asked orally and answered via multiple choice, and we piloted and revised them prior to implementation. Each student answered eight questions: a grade-specific set of four math questions at their 2020 grade level or lower, and then four additional questions at slightly lower or slightly higher grade levels, based on their performance on the initial four questions. We repeated questions across questionnaires when possible, generating a

bank of 19 questions. We completed child interviews in 86.9% of households who completed the endline survey.

Additional details on data collection can be found in the midline and endline reports, as well as the "Lowering Barriers to Remote Education: Experimental Impacts on Parental Responses and Learning" working paper, all available to download.

Access policy

CONFIDENTIALITY

Is signing of a confidentiality declaration required?
true

ACCESS CONDITIONS

Licensed access

CITATION REQUIREMENTS

Use of the dataset must be acknowledged using a citation which would include:
•the identification of the Primary Investigator
•the title of the survey (including country, acronym and year of implementation)
•the survey reference number
•the source and date of download

Example:
Emily Beam (University of Vermont), Priya Mukherjee (University of Wisconsin-Madison) and Laia Navarro-Sola (Institute for International Economic Studies, Stockholm University). Bangladesh - Take-Up, Use, and Effectiveness of Remote Technologies Impact Evaluation 2020-2021. Ref: BGD_2020-2021_TUUERT-IE_v01_M. Dataset downloaded from [URL] on [date].

ACCESS AUTHORITY

Name	Affiliation	URL	Email
Strategic Impact Evaluation Fund	The World Bank		siefimpact@worldbank.org
Alaka Holla	The World Bank		aholla@worldbank.org

LOCATION OF DATA COLLECTION

World Bank Microdata Library

Depositor information

DEPOSITOR

Name	Affiliation
Meyhar Mohammed LNU	The World Bank

DATE OF DEPOSIT

2025-01-06

Disclaimer and copyrights

DISCLAIMER

The user of the data acknowledges that the original collector of the data, the authorized distributor of the data, and the relevant funding agency bear no responsibility for use of the data or for interpretations or inferences based upon such uses.

Contacts

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Strategic Impact Evaluation Fund	The World Bank	siefimpact@worldbank.org	

Metadata production

DDI DOCUMENT ID

DDI_BGD_2020-2021_TUUERT-IE_v01_M_WB

PRODUCERS

Name	Abbreviation	Affiliation	Role
Development Economics Data Group	DECDG	The World Bank	Documentation of the study

DATE OF METADATA PRODUCTION

2026-08-19

Metadata version

DDI DOCUMENT VERSION

Version 01 (August 2026)

VERSION DATE

2026-08-26

data_dictionary

Data file	Cases	variables
masterdata_long_public_mar26 This dataset includes the data from all rounds of data collection for this survey.	9080	1118