Tanzania - Education Quality Improvement Programme Impact Evaluation Midline Survey 2016

Oxford Policy Management Ltd

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Overview

Identification

ID NUMBER
TZA_2016_EQUIPIE-ML_v02_M

Version

VERSION DESCRIPTION
Version 2.2: Edited, anonymous dataset for public distribution.

PRODUCTION DATE
2021-11

NOTES
Version 2.2 consists of four edited and anonymised datasets (at school, teacher, pupil and lesson level) with the responses to a small number of questions removed (see 'List of Variables Excluded from EQUIP-T IE Midline Survey Datasets' provided under Technical Documents); these were removed due to data quality issues or because no or only incomplete records existed. The datasets also contain selected constructed indicators prefixed by n_. These constructed indicators are included to save data users time as they require complex reshaping and extraction of data from multiple sources (but they could be generated by data users if preferred). Note that the first version of the archived dataset did not include the data from the pupil learning assessment (which were kept confidential until the completion of the impact evaluation in 2020). This second version of the public datasets includes the data from the pupil learning assessment conducted at midline. The archived pupil dataset and associated questionnaire 'EQUIP-T IE Pupil Background and Learning Assessment (PB) Midline Questionnaire' have therefore been updated in this new version.

The following variables were added:

All variables from p_a1_1 to p_k6_021 (these are the variables related to the learning assessment that we had kept confidential at midline)

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All variables from p_a1_1 to p_k6_021 (these are the variables related to the learning assessment that we had kept confidential at midline)

The following variables that were constructed by the OPM analysis team were also added:

· perraschK

· n_p_perfbandK

· perraschM_miss

· n_p_perfbandM

· n_sc_povertyscore

· n_sc_belowpoverty

The weight variables are: 'weight_school' and 'weight_pupil'

Overview

ABSTRACT

Education Quality Improvement Programme in Tanzania (EQUIP-T) is a Government of Tanzania programme, funded by UK DIFD, which seeks to improve the quality of primary education, especially for girls, in seven regions of Tanzania. It focuses on strengthening professional capacity and performance of teachers, school leadership and management, systems which support district management of education, and community participation in education.

The independent Impact Evaluation (IE) of EQUIP-T is a four-year study funded by the United Kingdom Department for International Development (DFID). It is designed to: i) generate evidence on the impact of EQUIP-T on primary pupil learning outcomes, including any differential effects for boys and girls; ii) examine perceptions of effectiveness of different EQUIP-T components; iii) provide evidence on the fiscal affordability of scaling up EQUIP-T post-2018; and iv) communicate evidence generated by the impact evaluation to policy-makers and key education stakeholders.

The research priorities for the midline IE are captured in a comprehensive midline evaluation matrix (see Annex B in the 'EQUIP-Tanzania Impact Evaluation. Midline Technical Report, Volume I: Results and Discussion' under Reports and policy notes). The matrix sets out evaluation questions linked to the programme theory of change, and identifies sources of evidence to answer each question-either the quantitative survey or qualitative research, or both. It asks questions related to the expected results at each stage along the results chain (from the receipt of inputs to delivery of outputs, and contributions to outcomes and impact) under each of the programme's components. The aim is to establish: (i) whether changes have happened as expected; (ii) why they happened or did not happen (i.e. whether key assumptions in the theory of change hold or not); (iii) whether there are any important unanticipated changes; and (iv) what links there are between the components in driving changes.

The main IE research areas are:

- Impact of EQUIP-T on standard 3 pupil learning in Kiswahili and mathematics.

- Impact of EQUIP-T on teacher absence from school and from classrooms.

- Impact of EQUIP-T on selected aspects of school leadership and management.

The IE uses a mixed methods approach that includes:

- A quantitative survey of 100 government primary schools in 17 programme treatment districts and 100 schools in 8 control districts in 2014, 2016 and 2018 covering:

- Standard three pupils and their parents/caregivers;

- Teachers who teach standards 1-3 Kiswahili;

- Teachers who teach standards 1-3 mathematics;

- Teachers who teach standards 4-7 mathematics;

- Head teachers; and

- Standard two lesson observations in Kiswahili and mathematics.

- Qualitative fieldwork in nine research sites that overlap with a sub-set of the quantitative survey schools, in 2014, 2016 and 2018, consisting of key informant interviews (KIIs) and focus group discussions (FGDs) with head teachers, teachers, pupils, parents, school committee (SC) members, region, district and ward education officials and EQUIP-T programme staff.

The midline data available in the World Bank Microdata Catalog are from the EQUIP-T IE quantitative midline survey conducted in 2016. For the qualitative research findings and methods see 'EQUIP-Tanzania Impact Evaluation. Midline Technical Report, Volume I: Results and Discussion' and 'EQUIP-Tanzania Impact Evaluation. Midline Technical Report, Volume II: Methods and Supplementary Evidence' under Reports and policy notes.

KIND OF DATA

Sample survey data [ssd]

UNITS OF ANALYSIS

- School

- Teacher

- Pupil

- Lesson (not sampled)

Scope

NOTES
The scope of the EQUIP-T IE Midline Survey includes:

- HEAD TEACHER/HEAD COUNT/SCHOOL RECORDS: Head teacher background information, qualifications, frequency/type of school planning/management in-service training received, availability and contents of whole school development plan, existence and types of teacher performance rewards and sanctions, frequency of staff meetings, ward education coordinator supervision and support to the school, head teacher motivation, head teacher attendance, reasons for head teacher and teacher absenteeism (reported by head teachers), teacher attendance (from school records and by headcount on the day of the survey), teacher punctuality, pupil attendance (from school records and by headcount on the day of the survey), pupil enrolment, availability of different types of school records, school characteristics, infrastructure and funding, receipt of in-kind resources.

- STANDARD 3 PUPILS: Pupil background information, Kiswahili Early Grade Reading Assessment (EGRA) and Early Grade Mathematics Assessment (EGMA) based on standards 1 and 2 national curriculum requirements. Note: The same pupils were assessed in both Kiswahili and mathematics.

- PARENTS OF SAMPLED STANDARD 3 PUPILS: household and parental characteristics, household assets.

- TEACHERS WHO TEACH STANDARDS 1-3 KISWAHILI AND/OR MATHEMATICS: Interview including background information, qualifications, frequency/type of in-service training received, frequency/nature of lesson observation and nature of feedback, frequency/nature of performance appraisal and teacher motivation.

- TEACHERS WHO TEACH STANDARDS 1-3 KISWAHILI: Kiswahili subject knowledge assessment (teacher development needs assessment) based on the primary school Kiswahili curriculum standards 1-7 but with limited materials from standards 1 and 2.

- TEACHERS WHO TEACH STANDARDS 1-3 MATHEMATICS: Mathematics subject knowledge assessment (teacher development needs assessment) based on the primary school mathematics curriculum standards 1-7 but with limited materials from standards 1 and 2.

- TEACHERS WHO TEACH STANDARDS 4-7 MATHEMATICS: Mathematics subject knowledge assessment (teacher development needs assessment) based on the primary school mathematics curriculum standards 1-7 but with limited materials from standards 1 and 2.

- LESSON OBSERVATION: Standard 2 Kiswahili and mathematics lesson observations of inclusive behaviour of teachers with respect to pupil gender, spatial inclusion, key teacher practices in the classroom, availability of lesson plan, availability of seating, textbooks, exercise books, pens/pencils during the lesson.

TOPICS

Topic	Vocabulary	URI
Education	World Bank	
Primary education	World Bank	

KEYWORDS
Primary education, Education quality, Pupil learning, Student learning, Pupil learning assessment, Early Grade Reading Assessment, EGRA, Early Grade Mathematics Assessment, EGMA, Teacher subject knowledge, Teacher Development Needs Assessment, Teaching practices, Pedagogy, Teacher motivation, Teacher absenteeism, Classroom absenteeism, School leadership and management, Teacher support, District education management, Instructional time, Community participation, Impact evaluation, Mixed methods evaluation

Coverage

GEOGRAPHIC COVERAGE

The survey is representative of the 17 EQUIP-T programme treatment districts. The survey is NOT representative of the 8 control districts. For more details see the section on Representativeness in 'EQUIP-Tanzania Impact Evaluation. Final Baseline Technical Report, Volume I: Results and Discussion' and 'EQUIP-Tanzania Impact Evaluation. Final Baseline Technical Report, Volume II: Methods and Technical Annexes' under Reports.

The 17 treatment districts are:

- Dodoma Region: Bahi DC, Chamwino DC, Kongwa DC, Mpwapwa DC

- Kigoma Region: Kakonko DC, Kibondo DC

- Shinyanga Region: Kishapu DC, Shinyanga DC

- Simiyu Region: Bariadi DC, Bariadi TC, Itilima DC, Maswa DC, Meatu DC

- Tabora Region: Igunga DC, Nzega DC, Sikonge DC, Uyui DC

The 8 control districts are:

- Arusha Region: Ngorongoro DC

- Mwanza Region: Misungwi DC

- Pwani Region: Rufiji DC

- Rukwa Region: Nkasi DC

- Ruvuma Region: Tunduru DC

- Singida Region: Ikungi DC, Singida DC

- Tanga Region: Kilindi DC

GEOGRAPHIC UNIT

District

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
Oxford Policy Management Ltd	

FUNDING

Name	Abbreviation	Role
Department for International Development UK	DFID	

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Harb, Jana		Oxford Policy Management Ltd	Data analyst

Pettersson Gelander, Gunilla		Birk Consulting	Quantitative education lead

DATE OF METADATA PRODUCTION
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DDI DOCUMENT VERSION
Version 2 (December 2021)

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Sampling

Sampling Procedure

Because the EQUIP-T regions and districts were purposively selected (see 'EQUIP-Tanzania Impact Evaluation. Final Baseline Technical Report, Volume I: Results and Discussion' under Reports and policy notes), the IE sampling strategy used propensity score matching (PSM) to: (i) match eligible control districts to the pre-selected and eligible EQUIP-T districts (see below), and (ii) match schools from the control districts to a sample of randomly sampled treatment schools in the treatment districts. The same schools are surveyed for each round of the IE (panel of schools) and standard 3 pupils will be interviewed at each round of the survey (no pupil panel).

Identifying districts eligible for matching

Eligible control and treatment districts were those not participating in any other education programme or project that may confound the measurement of EQUIP-T impact. To generate the list of eligible control and treatment districts, all districts that are contaminated because of other education programmes or projects or may be affected by programme spill-over were excluded as follows:

- All districts located in Lindi and Mara regions as these are part of the EQUIP-T programme but implementation started later in these two regions (the IE does not cover these two regions);
- Districts that will receive partial EQUIP-T programme treatment or will be subject to potential EQUIP-T programme spillovers;
- Districts that are receiving other education programmes/projects that aim to influence the same outcomes as the EQUIP-T programme and would confound measurement of EQUIP-T impact;
- Districts that were part of pre-test 1 (two districts); and
- Districts that were part of pre-test 2 (one district).

Sampling frame

To be able to select an appropriate sample of pupils and teachers within schools and districts, the sampling frame consisted of information at three levels:

- District;
- School; and
- Within school.

The sampling frame data at the district and school levels was compiled from the following sources: the 2002 and 2012 Tanzania Population Censuses, Education Management Information System (EMIS) data from the Ministry of Education and Vocational Training (MoEVT) and the Prime Minister's Office for Regional and Local Government (PMO-RALG), and the UWEZO 2011 student learning assessment survey. For within school level sampling, the frames were constructed upon arrival at the selected schools and was used to sample pupils and teachers on the day of the school visit.

Sampling stages

Stage 1: Selection of control districts
Because the treatment districts were known, the first step was to find sufficiently similar control districts that could serve as the counterfactual. PSM was used to match eligible control districts to the pre-selected, eligible treatment districts using the following matching variables: Population density, proportion of male headed households, household size, number of children per household, proportion of households that speak an ethnic language at home, and district level averages for household assets, infrastructure, education spending, parental education, school remoteness, pupil learning levels and pupil drop out.

Stage 2: Selection of treatment schools
In the second stage, schools in the treatment districts were selected using stratified systematic random sampling. The schools were selected using a probability proportional to size approach, where the measure of school size was the standard two enrolment of pupils. This means that schools with more pupils had a higher probability of being selected into the sample. To obtain a representative sample of programme treatment schools, the sample was implicitly stratified along four dimensions:

- District;

- PSLE scores for Kiswahili;
- PSLE scores for mathematics; and
- Total number of teachers per school.

Stage 3: Selection of control schools
As in stage one, a non-random PSM approach was used to match eligible control schools to the sample of treatment schools. The matching variables were similar to the ones used as stratification criteria: Standard two enrolment, PSLE scores for Kiswahili and mathematics, and the total number of teachers per school.

The midline survey was conducted for the same schools as the baseline survey (a panel of schools) and the endline survey in 2018 will cover the same sample of schools. However, the IE does not have a panel of pupils as a pupil only attends standard three once (unless repeating). Thus, the IE sample is a repeated cross-section of pupils in a panel of schools.

Stage 4: Selection of pupils and teachers within schools
Pupils and teachers were sampled within schools using systematic random sampling based on school registers. The within-school sampling was assisted by selection tables automatically generated within the computer assisted survey instruments.

Per school, 15 standard 3 pupils were sampled. For the teacher development needs assessment (TDNA), in the sample treatment schools, up to three teachers of standards 1 to 3 Kiswahili, up to three teachers of standards 1 to 3 mathematics; and up to three teachers of Standards 4-7 mathematics were randomly sampled. For the teacher interview sampling, one change was made at midline, instead of sampling up to three teachers of Standards 1-3 all of them were interviewed to boost the sample size as many schools are small.

Replacement sample
At baseline, if a selected school could not be surveyed it was replaced. In the process of sampling, the impact evaluation team drew a replacement sample of schools, which was used for this purpose (reserve list) and the use of this list was carefully controlled. Five out of the 200 original baseline sample schools were replaced during the fieldwork. At midline, all of the 200 schools surveyed at baseline were visited again (no replacements).

Sample sizes
The actual sample sizes at midline are:

- 200 schools (100 treatment and 100 control).
- 2,971 standard 3 pupils assessed in both Kiswahili and mathematics.
- 2,963 poverty scorecards were administered to the assessed pupils' parent(s).
- 817 teachers who teach standards 1 to 3 Kiswahili and/or mathematics interviewed
- 243 teachers who teach standards 1 to 3 Kiswahili were administered the Kiswahili teacher development needs assessment (treatment schools only).
- 239 teachers who teach standards 1 to 3 mathematics were administered the mathematics teacher development needs assessment (treatment schools only).
- 231 teachers who teach standards 4-7 mathematics were administered the mathematics teacher development needs assessment (treatment schools only).
- 231 standard 2 Kiswahili and mathematics lessons observed (treatment schools only).

Representativeness
The results from the treatment schools are representative of government primary schools in the 17 EQUIP-T programme treatment districts. However, the results from the schools in the 8 control districts are NOT representative because these districts were not randomly sampled but matched to the 17 treatment districts using propensity score matching (see above).

Response Rate

Unit response

- Actual sample sizes at midline are close to target sample sizes.
- All 200 schools surveyed at baseline were also surveyed at midline. At baseline five schools were replaced.
- For tested Standard 3 pupils and their parents, response rates are almost 100%.
- The response rate drops to 93% for Standards 1-3 teacher interviews, including 8% of teachers who were absent or unavailable on the day and were later interviewed by phone.
- Teacher development needs assessment (TDNA) response rates are slightly lower, at around 85%, one of the reasons being that it was sometimes difficult for teachers who teach both maths and Kiswahili to spare time to take both TDNAs.

- The target for lesson observations (not sampled) was 200, but under the new Standards 1 and 2 curriculum, maths and Kiswahili (either reading or writing) lessons often run sequentially without a break, and this enabled 94 maths lessons to be observed and 137 Kiswahili lessons, more than the target.

Item response

Item response rates were generally high. For the intended number of observations for the indicators presented in the 'EQUIP-Tanzania Impact Evaluation. Midline Technical Report, Volume I: Results and Discussion', see Section 1.3.3 ML quantitative survey instruments and sample, and for the actual number of observations see Annex F Detailed statistical tables of results from programme treatment districts in 'EQUIP-Tanzania Impact Evaluation. Midline Technical Report, Volume II: Methods and Supplementary Evidence'.

Weighting

The survey is only representative of the EQUIP-T programme treatment area and therefore survey weights were only constructed for schools, pupils, teachers in the treatment group (not for the control group).

To obtain results that are representative of the EQUIP-T programme treatment areas, treatment estimates should be weighted using the provided survey weights that are normalised values of the inverse probabilities of selection into the sample for each unit of analysis. The relevant probabilities of selection differ depending on whether analysis is carried out at school, pupil or teacher level, and survey weights for each of these units of analysis are included in the datasets.

School weights (treatment group only)
The probability of being selected of each school depended on the total number of schools being selected and its size relative to the total number of enrolled pupils across all schools in the programme areas. Formally, the probability of a given school being selected into the sample equals the total number of schools sampled multiplied by the ratio of the number of pupils in the given school and the total number of pupils in all schools in the relevant programme areas. The school weights are appropriately normalised inverses of these probabilities.

Note: Refer to the end of this section for the strata, weights and finite population correction factor variables included in the dataset.

Pupil weights (treatment group only)
15 standard 3 pupils were randomly sampled at each school. The probability of selection of a pupil in a given school equals the school weight (defined above) multiplied by the ratio of the number of pupils selected per school (15 in all schools except in the schools that had less than 15 pupils present on that day) and the total number of eligible pupils in the given school. The pupil weights are appropriately normalised inverses of these probabilities.

Note: Refer to the end of this section for the strata, weights and finite population correction factor variables included in the dataset.

Teacher weights (treatment group only)
The probability of selection of a teacher in a given school equals the school weight (defined above) multiplied by the ratio of the number of teachers that were selected for a given teacher instrument per school and the total number of teachers eligible for the given instrument. The teacher weights are appropriately normalised inverses of these probabilities.

NOTE:
- For data from the teacher interviews the teacher interview weights should be used: weight_tchint. Since all teachers eligible for the interview in each school were interviewed, this means that the selection probability for each teacher is equal to one in this case.
- For data from the teacher development needs assessment (TDNA) the teacher tdna weights should be used: weight_tdna
- For data from the teacher roster the teacher roster weights should be used: weight_teacherroster. Since all teachers in each school are included in the roster, this means that the selection probability for each teacher is equal to one in this case.

Note: Refer to the end of this section for the strata, weights and finite population correction factor variables included in the dataset.

Stratification, clustering and finite population corrections

The survey weights should be used within a survey set-up that takes into account stratification, clustered sampling and finite

population corrections.

Stratification during sampling was used at the primary sampling level, that is, at school level, and not at the lower levels (pupil and teacher). For the estimation set-up, strata for schools are defined by districts and teacher-body size terciles. Although, during sampling, schools were implicitly stratified by primary school leaving examination (PSLE) scores as well, this is a continuous variable that cannot be used to define strata in the estimation set-up.

Clustering is only relevant for pupil and teacher level data, as schools were the primary sampling units within the eligible programme treatment districts. School pupil data is also hierarchical in nature with pupils clustered within schools. Hence, for pupil and teacher estimates, clustering is set at the school level.

Because large proportions of the total eligible population were sampled in many schools at the teacher and pupil levels, the estimation set-up should also account for the finite population correction (FPC) factor. This FPC factor is the square root of the ratio of the population from which the sample is drawn minus the size of the sample and the population from which the sample is drawn minus one. In the case of school level data, the FPC factor is constant across all schools, as the sample of schools was drawn from a constant population of all eligible schools in the programme treatment areas. However, for teacher and pupil level data, the FPC factor changes depending on the school, as population sizes and, in the case of teacher level data, sample sizes vary as well.

Stratification, weight, finite population correction and treatment status variables

In the EQUIP-T IE datasets the stratification, weight, FPC and treatment status variables are as follows:

- The strata variable is: strata

- The school weights variable is: weight_school
- The school finite population correction factor is: fpc_school

- The pupil weight variable is: weight_pupil
- The pupil finite population correction factor is: fpc_pupil

- The teacher interview weight variable is: weight_tchint
- The teacher interview finite population correction factor is: fpc_tchint

- The teacher development needs assesment (TDNA) weight variable is: weight_tdna
- The teacher development needs assesment (TDNA) finite population correction factor is: fpc_tdna

- The teacher roster weight variable is: weight_teacherroster
- The teacher roster finite population correction factor is: fpc_teacherroster

- The treatment status variable is: treatment where 0=control school and 1=treatment school.

Questionnaires

Overview

The enumerators administered all of the instruments using Computer Assisted Personal Interviewing (CAPI), except for the teacher development needs assessments (TDNAs) which were administered on paper, as these take the form of mock pupil tests which teachers mark. All instruments were translated into Kiswahili and administered to all respondents in Kiswahili.

The midline survey round uses a set of survey instruments that retain most of the baseline questions but with some additions to take into account changes in programme context and design and focus of programme implementation. The main changes to instruments are:

- Pupil background: addition of questions on pre-school attendance; languages spoken at home and use of languages by teachers at school.
- Poverty score card: addition of questions on languages spoken at home; support at home for homework and learning to read; child work.
- Teacher interview: addition of questions on languages spoken at home and at school; more details on INSET (including capturing courses provided by LANES and other programmes) and views on EQUIP-T INSET if applicable; teaching the new curriculum; teaching practices related to inclusion; views on HTs and parent-teacher-partnership (PTP) actions on school improvement; journey time to school; timeliness and accuracy of salary payments; reasons for school and classroom absenteeism.
- Head teacher interview: addition of questions on languages spoken at home; more details on in-service training (INSET) and views on EQUIP-T INSET if applicable; monthly reporting to the WEC/district; views on the PTP; own actions to improve the school; actions resulting from a community needs assessment if applicable; reasons for teacher school and classroom absence; actions taken by WECs during visits; timeliness and accuracy of salary payments; reasons for own absenteeism.
- School records collection: addition of questions on pre-school classes and provision in community (including SRP); background data on all teachers in school (age, experience, qualifications) not just the sampled teachers; more details on material and financial resources received by the school; attendance records for sampled pupils. Removal of detailed questions on the school timetable because this was time-consuming at BL and the data was not comprehensive enough to be useful, and there were concerns about its reliability.
- Lesson observation: adaption to account for 3Rs lessons where reading, writing and maths are taught sequentially as one 'lesson'; addition of questions on teacher's approach to teaching reading and whether materials such as those supplied by EQUIP-T (supplementary readers, Big Books, Teacher Read-Alouds) are in the classrooms and being used by teachers or pupils.

Standard 3 pupil Kiswahili and maths test (same pupils tested in both Kiswahili and maths)
- Kiswahili literacy pupil test based on standard 1 and 2 curriculum requirements
- Maths pupil test based on standard 1 and 2 curriculum requirements
- Pupil background information

Parents of Standard 3 tested pupil interview (poverty score card)
- Set of household characteristics (that can be used to convert scores into poverty likelihoods based on a pre-existing instrument)

Standards 1, 2 and 3 teacher interview
- Background information: gender, age, years of teaching, qualifications
- Frequency/type of in-service training received
- Frequency/nature of lesson observation and nature of feedback
- Frequency/nature of performance appraisal

Standards 1, 2 and 3 teacher development needs assessment (TDNA) Kiswahili
- Teacher Kiswahili subject knowledge assessment based on the primary school curriculum (standards 1-7 but only limited materials from standards 1 and 2)

Standards 1, 2 and 3 teacher development needs assessment (TDNA) maths
- Teacher mathematics subject knowledge assessment based on the primary school curriculum (standards 1-7 but only limited materials from standards 1 and 2)

Standards 4-7 teacher development needs assessment (TDNA) maths

- Teacher mathematics subject knowledge assessment based on the primary school curriculum (standards 1-7 but only limited materials from standards 1 and 2)

Head teacher interview and data collection from school records
- Background information on head teacher: gender, age, years of experience, qualifications
- School background information: teachers, physical facilities, school timetable, number of days school open
- Frequency/type of school planning/management in-service training received
- Teacher attendance (by records)
- Pupil attendance (by records)

Standard 2 Kiswahili and maths lesson observations
- Inclusive behaviour of teachers with respect to gender and seating position
- Key teacher behaviours in the classroom
- Availability of lesson plan
- Availability of seating, textbooks, exercise books, pens/pencils etc. during the lesson

Headcount observation
- Pupil and teacher attendance observation
- Physical facilities observation

Pre-tests

The revisions to the baseline instruments were trialled during two midline pre-tests which took place in November 2015 and February 2016.

The first ML pre-test took place in Kinondoni district (Dar es Salaam) on November 24th-25th 2015. A small team of two OPM staff members and three enumerators from the BL survey visited 2 schools to: i) test the functionality of the updated electronic questionnaires in the updated CAPI software (Surveybe); ii) gather information on how the change in government, the introduction of the Literacy and Numeracy Educational Support (LANES) Programme in 2015 and the resulting change in Standard 1 and 2 curriculum were affecting primary education at school level.

A second, full pre-test of all instruments and protocols took place from the 8th to 12th of February 2016 in Kisarawe District, Pwani region. A team of 15 (five OPM staff, one OPM intern, seven enumerators, a DFID representative, and an education professor from the University of Dar es Salaam who is a senior member of the IE team) visited four schools, following two days of classroom-based training. The pre-test resulted in the following outcomes:
- Refinement of the instruments and data collection protocols;
- Refinement of the translation of instruments from English to Kiswahili;
- Significant changes made to the development of the instruments in CAPI (Surveybe);
- Development of protocols for tracking households and ethical protocols for escorting pupils at the end of the day to their home; and
- Decisions made on instruments to be conducted in control vs. treatment schools, training timeline and broad plan, fieldwork timeline, fieldwork model, and team composition.

Data Collection

Data Collection Dates

Start	End	Cycle
2016-04-15	2016-05-27	Midline

Data Collection Mode

Computer Assisted Personal Interview [capi]

Data Collection Notes

Personnel: Oxford Policy Management's (OPM) Tanzania office conducted the Midline Impact Evaluation survey.

The fieldwork management team comprised seven members (including six OPM staff) led by a quantitative survey project manager who had overall responsibility for the design, implementation, management and quality of the fieldwork. Since all the survey instruments excluding the teacher development needs assessments (TDNAs) were administered using computer assisted personal interviewing (CAPI), the team also included several members with strong computer programming skills in the relevant software (Surveybe). The overall project manager for the IE, who is responsible for the content of the instruments worked closely with the fieldwork team during pre-testing, training, piloting and early fieldwork. 51 enumerators were invited to the training. These were selected based on the following criteria (in order): (i) high performance during the EQUIP-T BL survey (about half of the enumerators from BL also worked in the ML survey); (ii) interviewers with strong track record from other OPM-led surveys; and (iii) new recruits that were interviewed over 2 days and selected based on their prior survey experience and knowledge of education.

Fieldwork preparation: The early fieldwork preparation consisted of pre-testing the instruments and protocols, obtaining permits from the government for visiting schools during the pre-tests, pilot and fieldwork, revising the BL fieldwork manual, and refining the instruments and protocols.

Pre-tests of instruments: See Questionnaires Section below.

Permits and reporting

As part of preliminary preparations for any survey in Tanzania, there are two types of governmental permits that have to be obtained prior the beginning of Research work:
- COSTECH Permit - Mandatory for any research activity in Tanzania.
- Ministry Permit - Different partners in the field require Ministry letters, as few recognise COSTECH. These permits give the order to local administration to cooperate with the research and support the field teams.

Upon receipt of the permits, the anticipated fieldwork needs to be reported at the regional and district level. Letters introducing the study to local leaders are obtained in the process. For the ML IE survey, the COSTECH research clearance and an introduction letter was received two months prior the start of actual fieldwork. For the Ministry permits, OPM reported to The Prime Minister's Office Regional Administration and Local government (PMORALG) and to the Ministry of Education and Vocational Training (MoEVT). Reporting to MoEVT was relatively fast and simple. The initial submitted letters were followed up in person, and an introduction letter to all 12 Regional Administrative Secretaries was received after 7 days. Getting government approvals from PMORALG proved very time-consuming. The final decision was to shift to a physical reporting approach, as sending letters by courier and follow-up phone calls were unsuccessful. In a combined effort, three of the fieldwork management team members reported in person to all 10 regional and 25 district offices during the enumerator training period. In total 50 person days (including travel days, as distances are vast) had to be allocated to this final reporting task.

Fieldwork manual

Using the baseline fieldwork manual as a basis, an extensive midline fieldworker manual was developed that covered basic guidelines on behaviour and attitude, the use of CAPI and data validation procedures, instructions on fieldwork plans and procedures (sample, targets, replacements, communication, and reporting) as well as a dedicated part on the description of all instruments and protocols. Insights from the pre-test were reflected in the manual. Draft versions of the instrument and

protocol sections of the manuals were printed, handed out to interviewers as a reference during the training, and used as guidelines by the trainers. The manual was updated on an ongoing basis during the training and pilot phase where updated conventions or additional clarifications were needed. The final version of the manual was printed at the end of the pilot phase and copies provided to the field teams.

Training and pilot

Enumerator training and a field pilot took place in Dar es Salaam and Dodoma from 29th March to 14th April. A total of 47 enumerator trainees participated in the training. The training was delivered by four members of the fieldwork management team and the overall IE project manager. The main objective of the training was to ensure that team members would be able to master the instruments, understand and correctly implement the fieldwork protocols, comfortably use CAPI, and be able to perform data validation. Supervisors were furthermore trained on their extra responsibilities of data management, fieldwork and financial management, logistical tasks, and the transmission of data files to the data manager.

The training had two components: a classroom-based training component and a field-based component that included a full scale pilot. The performance of enumerators was assessed on an on-going basis, using written assessments and observation of performance in the field and these scores were recorded. At the end of the training and pilot phase, the final fieldwork team was selected using this information.

Fieldwork organisation

The fieldwork plan was designed to cover all 200 schools within all 12 regions and 25 districts for the duration of not more than 7 weeks starting April 15th 2016 to May 27th 2016. Teams communicated regularly with OPM to report delays and/or any event likely to affect the feasibility of the fieldwork plan.

The team composition and fieldwork model at ML were set up differently to baseline to: a) reduce transport costs by reducing car days relative to fieldworker days and moving more travel days to Saturday (schools closed, but working day for fieldworkers), and b) to be able to translate the reduced requirements of instruments in control schools into reduced team size for control teams. At baseline, fieldwork was undertaken by 15 teams of 3 fieldworkers each visiting a school on two consecutive days. At midline, 4 treatment teams of 6 fieldworkers (1 supervisor and 5 enumerators) and 4 control teams of 5 fieldworkers (1 supervisor and 5 enumerators) visited one school on one day. Each team had one supervisor who was responsible for quality-checking the enumerators' work.

The fieldwork started on the 15th of April 2016 and ended on the 27th of May 2016 with no major breaks in-between.

Questionnaires

The enumerators administered all of the instruments using Computer Assisted Personal Interviewing (CAPI), except for the teacher development needs assessments (TDNAs) which were administered on paper, as these take the form of mock pupil tests which teachers mark. All instruments were translated into Kiswahili and administered to all respondents in Kiswahili.

The midline survey round uses a set of survey instruments that retain most of the baseline questions but with some additions to take into account changes in programme context and design and focus of programme implementation. The main changes to instruments are:

- Pupil background: addition of questions on pre-school attendance; languages spoken at home and use of languages by teachers at school.
- Poverty score card: addition of questions on languages spoken at home; support at home for homework and learning to read; child work.
- Teacher interview: addition of questions on languages spoken at home and at school; more details on INSET (including capturing courses provided by LANES and other programmes) and views on EQUIP-T INSET if applicable; teaching the new curriculum; teaching practices related to inclusion; views on HTs and parent-teacher-partnership (PTP) actions on school improvement; journey time to school; timeliness and accuracy of salary payments; reasons for school and classroom absenteeism.
- Head teacher interview: addition of questions on languages spoken at home; more details on in-service training (INSET) and views on EQUIP-T INSET if applicable; monthly reporting to the WEC/district; views on the PTP; own actions to improve the school; actions resulting from a community needs assessment if applicable; reasons for teacher school and classroom absence; actions taken by WECs during visits; timeliness and accuracy of salary payments; reasons for own absenteeism.
- School records collection: addition of questions on pre-school classes and provision in community (including SRP); background data on all teachers in school (age, experience, qualifications) not just the sampled teachers; more details on material and financial resources received by the school; attendance records for sampled pupils. Removal of detailed

questions on the school timetable because this was time-consuming at BL and the data was not comprehensive enough to be useful, and there were concerns about its reliability.
- Lesson observation: adaption to account for 3Rs lessons where reading, writing and maths are taught sequentially as one 'lesson'; addition of questions on teacher's approach to teaching reading and whether materials such as those supplied by EQUIP-T (supplementary readers, Big Books, Teacher Read-Alouds) are in the classrooms and being used by teachers or pupils.

Standard 3 pupil Kiswahili and maths test (same pupils tested in both Kiswahili and maths)
- Kiswahili literacy pupil test based on standard 1 and 2 curriculum requirements
- Maths pupil test based on standard 1 and 2 curriculum requirements
- Pupil background information

Parents of Standard 3 tested pupil interview (poverty score card)
- Set of household characteristics (that can be used to convert scores into poverty likelihoods based on a pre-existing instrument)

Standards 1, 2 and 3 teacher interview
- Background information: gender, age, years of teaching, qualifications
- Frequency/type of in-service training received
- Frequency/nature of lesson observation and nature of feedback
- Frequency/nature of performance appraisal

Standards 1, 2 and 3 teacher development needs assessment (TDNA) Kiswahili
- Teacher Kiswahili subject knowledge assessment based on the primary school curriculum (standards 1-7 but only limited materials from standards 1 and 2)

Standards 1, 2 and 3 teacher development needs assessment (TDNA) maths
- Teacher mathematics subject knowledge assessment based on the primary school curriculum (standards 1-7 but only limited materials from standards 1 and 2)

Standards 4-7 teacher development needs assessment (TDNA) maths
- Teacher mathematics subject knowledge assessment based on the primary school curriculum (standards 1-7 but only limited materials from standards 1 and 2)

Head teacher interview and data collection from school records
- Background information on head teacher: gender, age, years of experience, qualifications
- School background information: teachers, physical facilities, school timetable, number of days school open
- Frequency/type of school planning/management in-service training received
- Teacher attendance (by records)
- Pupil attendance (by records)

Standard 2 Kiswahili and maths lesson observations
- Inclusive behaviour of teachers with respect to gender and seating position
- Key teacher behaviours in the classroom
- Availability of lesson plan
- Availability of seating, textbooks, exercise books, pens/pencils etc. during the lesson

Headcount observation
- Pupil and teacher attendance observation
- Physical facilities observation

Pre-tests

The revisions to the baseline instruments were trialled during two midline pre-tests which took place in November 2015 and February 2016.

The first ML pre-test took place in Kinondoni district (Dar es Salaam) on November 24th-25th 2015. A small team of two OPM staff members and three enumerators from the BL survey visited 2 schools to: i) test the functionality of the updated electronic questionnaires in the updated CAPI software (Surveybe); ii) gather information on how the change in government, the introduction of the Literacy and Numeracy Educational Support (LANES) Programme in 2015 and the resulting change in Standard 1 and 2 curriculum were affecting primary education at school level.

A second, full pre-test of all instruments and protocols took place from the 8th to 12th of February 2016 in Kisarawe District, Pwani region. A team of 15 (five OPM staff, one OPM intern, seven enumerators, a DFID representative, and an education professor from the University of Dar es Salaam who is a senior member of the IE team) visited four schools, following two days of classroom-based training. The pre-test resulted in the following outcomes:
- Refinement of the instruments and data collection protocols;
- Refinement of the translation of instruments from English to Kiswahili;
- Significant changes made to the development of the instruments in CAPI (Surveybe);
- Development of protocols for tracking households and ethical protocols for escorting pupils at the end of the day to their home; and
- Decisions made on instruments to be conducted in control vs. treatment schools, training timeline and broad plan, fieldwork timeline, fieldwork model, and team composition.

Data Collectors

Name	Abbreviation	Affiliation
Oxford Policy Management Ltd	OPM	

Supervision

Quality control and data checking protocols

At the end of each working day, supervisors collected all interview files from their team members and uploaded them into a shared and organised Dropbox folder that was set up by the data manager. The data manager would receive all files from all 8 teams and export them into Stata data files (a statistical programme) and then run daily checks on all files to make sure they are complete and identify potential errors. Several mechanisms were put in place in order to ensure high quality of the data collected during the survey. These are briefly summarised in turn below.

- Selection and supervision of enumerators
As discussed above, each enumerator was supervised at least once by the training team during the training, piloting and first week of data collection. This allowed a well-informed selection of enumerators and their allocation into roles matching individual strengths and weaknesses.

- CAPI built-in routing and validations
One important quality control means in CAPI surveys are the use of automatic routing and checking rules built into the CAPI questionnaires that flag simple errors during the interview, i.e. early enough for them be corrected during the interview. In each CAPI instrument, validations and checks were incorporated in the design in order to significantly reduce errors and inaccuracies during data collection. In addition to having automatic skip patterns built into the design to eliminate errors resulting from wrong skips, the CAPI validations also checked for missing fields, out of range values and inconsistencies within instruments.

- Secondary consistency checks and cleaning in Stata
The ML survey exploited another key advantage of CAPI surveys, the immediate availability of data, by running a range of secondary consistencies checks across all data on a daily basis in Stata. Data received from the field was exported to Stata the following day, and a range of do-files were run to assess consistency and completeness, and make corrections if necessary. The checks comprised the following: ID uniqueness and matching across instruments; completeness of observations: target sample size versus actual; and intra- and inter-instrument consistency and out of range checks. The data manager ran the checking do-file on a daily basis on the latest cleaned data. This would return a list of potential issues in the long format which the data manager would then investigate and undertake the necessary cleaning actions. Whenever any issue was flagged, effort to obtain an explanation was undertaken either by reviewing enumerator comments or phoning teams. In addition to the checking and cleaning process, all enumerator comments as well as other specify variables were translated from Kiswahili to English. All translated entries were further reviewed by the data analysis team in order to 1) ensure that they are understandable and properly translated into English and 2) none of the other specify answers for multiple response questions are in fact synonymous to one of the response items. The revision resulted in a long list of other specify items that were then recoded into one the available response items.

- Monitoring fieldwork progress and performance indicators
In addition to the above checks that were specific to each instrument, the survey team monitored the general progress of the fieldwork and specific indicators revealing the performance of teams and enumerators over time. Indicators such as number of control/treatment schools completed, number of teachers/pupils/parent/lesson observations interviews

completed, average interviewing time of each instrument, number pupils interviewed instead of their parents for the porverty scorecard instrument, how many teacher interviews were conducted over the phone, etc. These indicators were constructed in a Stata do-file that ran on the latest cleaned dataset and was then uploaded onto a google document sheet that would break down each of the indicators by team, enumerator (where applicable) and week of data collection. This was reviewed regularly by the fieldwork management team, and overall IE project manager, and used to feedback to weaker teams and to improve performance.

- Back-checking data
The quality assurance (QA) protocol involved back-checks that were conducted over the phone and in the field. Two members of the fieldwork management team called back interviewed teachers to confirm that the interviews were indeed conducted. Furthermore, a list of questions to be re-asked to teachers were compiled and administered to the teacher over the phone to ensure that the information was properly collected. In addition, the fieldwork management team re-visited 10 schools and 45 households to check whether interviews were administered properly.

- Integration of Analysis and Survey Team
Another central element of QA was the strong integration of the fieldwork management team and the members of the quantitative analysis team, including the overall IE project manager. Members of both teams were involved in the fieldwork preparation and implementation, and in the analysis process which followed.

Data Processing

Data Editing

Initial data checking and editing by the OPM Tanzania survey team
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All sampled schools, head teachers, teachers and pupils were uniquely identified by ID codes assigned either before the fieldwork (region, district and school IDs), or at the time of the school visit using automated tables in CAPI (teacher, lesson observation and pupil IDs). The first set of data checking activities included (using Stata):

-Checking of all IDs;
-Checking for missing observations;
-Checking for missing item responses where none should be missing; and
-First round of checks for inadmissible/out of range and inconsistent values.

This resulted in four edited datasets (school/head teacher level, pupil level, teacher level and lesson observation level) sent to the OPM impact evaluation team for further checking and analysis.

Data checking and editing by the OPM impact evaluation team

The four edited datasets received from the OPM Tanzania survey team were subject to a second set of checking and cleaning activities. This included checking for out of range responses and inadmissible values not captured by the filters built into the CAPI software or the initial data checking process by the survey team. This also involved recoding of non-responses due to the questionnaire design and rules of questionnaire administration for the pupil learning assessment and teacher development needs assessment.

A comprehensive data checking and analysis system was created including a logical folder structure, the development of a detailed data documentation guide and template syntax files (in Stata), to ensure data checking and cleaning activities were recorded, that all analysts used the same file and variable naming conventions, variable definitions, disaggregation variables and weighted estimates appropriately.

Other Processing

Because computer assisted personal interviewing (CAPI) was used to collect the data there was no data entry except for the teacher development needs assessment (TDNA), which was administered on paper. For this instrument, enumerators were trained to mark the TDNAs using the provided marking scheme and input the TDNA marks for each assessment item/question into an excel file.

Data Appraisal

No content available

Documentation

Questionnaires

EQUIP-T IE Head Teacher (HT) Midline Questionnaire

Title	EQUIP-T IE Head Teacher (HT) Midline Questionnaire
Author(s)	Oxford Policy Management Ltd.
Date	2016-05-13
Country	Tanzania
Language	English
Filename	EQUIP-T IE head teacher (HT) midline questionnaire.pdf

EQUIP-T IE Head Count (HC) Midline Questionnaire

Title	EQUIP-T IE Head Count (HC) Midline Questionnaire
Author(s)	Oxford Policy Management Ltd.
Date	2016-05-12
Country	Tanzania
Language	English
Filename	EQUIP-T IE head count (HC) midline questionnaire.pdf

EQUIP-T IE School Records (SR) Midline Questionnaire

Title	EQUIP-T IE School Records (SR) Midline Questionnaire
Author(s)	Oxford Policy Management Ltd.
Date	2016-05-13
Country	Tanzania
Language	English
Filename	EQUIP-T IE school records (SR) midline questionnaire.pdf

EQUIP-T IE Lesson Observation (LO) Midline Questionnaire

Title	EQUIP-T IE Lesson Observation (LO) Midline Questionnaire
Author(s)	Oxford Policy Management Ltd.
Date	2016-05-13
Country	Tanzania
Language	English
Filename	EQUIP-T IE lesson observation (LO) midline questionnaire.pdf

EQUIP-T IE Teacher Interview (TI) Midline Questionnaire

Title	EQUIP-T IE Teacher Interview (TI) Midline Questionnaire
Author(s)	Oxford Policy Management Ltd.
Date	2016-05-12
Country	Tanzania
Language	English

Filename	EQUIP-T IE teacher interview (TI) midline questionnaire.pdf

EQUIP-T IE Pupil Background and Learning Assessment (PB) Midline Questionnaire

Title	EQUIP-T IE Pupil Background and Learning Assessment (PB) Midline Questionnaire
Author(s)	Oxford Policy Management Ltd.
Date	2016-05-13
Country	Tanzania
Language	English
Filename	EQUIP-T IE Pupil Background and Learning Assessment (PB) Midline Questionnaire.pdf

EQUIP-T IE Poverty Scorecard (SC) Midline Questionnaire

Title	EQUIP-T IE Poverty Scorecard (SC) Midline Questionnaire
Author(s)	Adapted by Oxford Policy Management Ltd. for the EQUIP-T IE baseline survey from Schreiner, M. (2013) A Simple Poverty Scorecard for Tanzania. Kansas City: Microfinance Risk Management, LLC.
Date	2016-05-13
Country	Tanzania
Language	English
Filename	EQUIP-T IE poverty scorecard (SC) midline questionnaire.pdf

Reports

EQUIP-Tanzania Impact Evaluation. Final Baseline Technical Report, Volume I: Results and Discussion

Title	EQUIP-Tanzania Impact Evaluation. Final Baseline Technical Report, Volume I: Results and Discussion
Author(s)	Pettersson, Gunilla Rawle, Georgina Outhred, Rachel Brockerhoff, Stephanie Wills, Gabrielle Nugroho, Dita Jasper, Paul Kveder, Andrej Beavis, Adrian
Date	2015-01-15
Country	Tanzania
Language	English
Publisher(s)	Oxford Policy Management Ltd.

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EQUIP-Tanzania Impact Evaluation. Final Baseline Technical Report, Volume II: Methods and Technical Annexes

Title	EQUIP-Tanzania Impact Evaluation. Final Baseline Technical Report, Volume II: Methods and Technical Annexes
Author(s)	Pettersson, Gunilla Rawle, Georgina Outhred, Rachel Brockerhoff, Stephanie Wills, Gabrielle Nugroho, Dita Jasper, Paul Kveder, Andrej Beavis, Adrian
Date	2015-01-15
Country	Tanzania
Language	English
Publisher(s)	Oxford Policy Management Ltd.

EQUIP-Tanzania Impact Evaluation. Midline Technical Report, Volume I: Results and Discussion

Title	EQUIP-Tanzania Impact Evaluation. Midline Technical Report, Volume I: Results and Discussion
Author(s)	Rawle, Georgina Ruddle, Nicola Pettersson Gelander, Gunilla Wallin, Johanna Binci, Michele Jasper, Paul Harb, Jana Hebbar, Madhumitha Davis, Jean Aldinucci, Alice
Date	2017-03-21
Country	Tanzania
Language	English
Publisher(s)	Oxford Policy Management Ltd.

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Filename EQUIP-T IE Midline Technical Report, Volume I Results and Discussion.pdf

EQUIP-Tanzania Impact Evaluation. Midline Technical Report, Volume II: Methods and Supplementary Evidence

Title	EQUIP-Tanzania Impact Evaluation. Midline Technical Report, Volume II: Methods and Supplementary Evidence
Author(s)	Rawle, Georgina Ruddle, Nicola Pettersson Gelander, Gunilla Wallin, Johanna Binci, Michele Jasper, Paul Harb, Jana Hebbar, Madhumitha Davis, Jean Aldinucci, Alice
Date	2017-03-21
Country	Tanzania
Language	English
Publisher(s)	Oxford Policy Management Ltd.

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Filename EQUIP-T IE Midline Technical Report, Volume II Methods and Supplementary Evidence.pdf

EQUIP-Tanzania Impact Evaluation. Midline Issues Note 1: The Changing Context for Teacher In-Service Training—Reflections on EQUIP-Tanzania's Experience

Title	EQUIP-Tanzania Impact Evaluation. Midline Issues Note 1: The Changing Context for Teacher In-Service Training—Reflections on EQUIP-Tanzania's Experience
Author(s)	Pettersson Gelander, Gunilla Rawle, Georgina Karki, Shrochis Ruddle, Nicola
Date	2017-03-09
Country	Tanzania
Language	English
Publisher(s)	Oxford Policy Management Ltd.
Abstract	In-service training (INSET) is a key aspect of teachers' professional development, and should help bring about improvements in teaching practices, sustain motivation and help teachers adapt to changes. But the design of INSET programmes and the context in which they are implemented can make a difference in how effective they are in improving teaching quality and in turn pupil learning. The Education Quality Improvement Programme in Tanzania (EQUIP-T) is a Government of Tanzania programme, funded by DFID, which seeks to improve learning outcomes in primary education, especially for girls, in seven regions of Tanzania. It focuses on strengthening the professional capacity and performance of teachers; school leadership and management; systems that support regional and district management of education; and community participation in education. In late 2014, EQUIP-T started implementing large-scale INSET for early grade teachers in the programme regions, and in 2015 it delivered reading, writing and arithmetic (3Rs) curriculum training and a series of Kiswahili literacy modules. The core of the delivery model is a continuous cycle of school-based training linked to classroom practice led by a teacher appointed in each school. The independent impact evaluation of EQUIP-T uses a mixed-methods approach to enable robust estimation of EQUIP-T impact on pupil learning and collection of evidence on pathways of programme influence. The baseline research was conducted in 2014, the midline in 2016, and the endline will take place in 2018. The quantitative baseline and midline surveys cover 100 government primary schools in 17 EQUIP-T districts (and 100 control schools in non-programme districts) and include: Standard 3 pupil tests in Kiswahili and maths; head teacher and teacher interviews; Teacher Development Needs Assessments (TDNAs) in Kiswahili and maths; and observations of Standard 2 lessons in Kiswahili and maths. The qualitative research covers nine research sites that overlap with a subset of the quantitative survey schools. It uses key informant interviews and focus group discussions with head teachers; teachers of Standards 1-3; Standard 3 pupils and their fathers and mothers; school committee members; community leaders; and region, district and ward education officials. At midline, the IE finds that EQUIP-T's INSET for early grade teachers has contributed to gains in Kiswahili literacy skills for the poorest performing pupils in the EQUIP-T districts. This issues note presents evidence from the IE on changes in teacher performance and how these relate to the EQUIP-T INSET. There are four key findings. (1) Teachers' interactions with pupils in the classroom have become significantly more gender and spatially inclusive since baseline. This is a sign that the EQUIP-T INSET, which covered gender-responsive pedagogy in its early modules, is contributing to behaviour change. (2) There are perceptions of positive changes in general teaching practices but limited evidence from lesson observations to support this. The mixed evidence on changes in effective teaching practices may reflect an improvement in the capacity of teachers to teach well, but this may be constrained by the systemic constraints discussed in this note, including large class sizes. (3) Compared with the official instructional time, early grade pupils in the EQUIP-T districts receive on average 40% fewer actual instructional hours in both Kiswahili and maths. Teachers not attending their lessons although scheduled to teach is a main contributing factor. (4) EQUIP-T has helped improve teachers' classroom attendance, and has thus boosted instructional hours for pupils. But there is still a substantial loss of instructional time, and also a reduction in time during which teachers use and further develop teaching practices learnt during INSET. This note also discusses three systemic constraints that affect the EQUIP-T INSET, and likely also other INSET programmes operating in similar contexts: high teacher turnover, large class sizes and differences between the language of instruction and the languages spoken by pupils.
Filename	EQUIP-T IE Midline Issues Note 1, The Changing Context for Teacher In-Service Training.pdf

Technical documents

List of Variables Excluded from EQUIP-T IE Midline Survey Datasets

Title	List of Variables Excluded from EQUIP-T IE Midline Survey Datasets
Author(s)	Oxford Policy Management Ltd.
Date	2021-11-01
Language	English
Description	This file lists variables collected during the EQUIP-T IE midline survey but that have been excluded from the public use datasets and reasons for exclusion (e.g. data quality, errors or confidentiality).
Filename	List of Variables Excluded from EQUIP-T IE Midline Survey Datasets.xlsx

EQUIP-T IE PB and TDNA Questionnaires Summary

Title	EQUIP-T IE PB and TDNA Questionnaires Summary
Author(s)	Pettersson Gelander, Gunilla Rawle, Georgina
Date	2016-11-24
Language	English
Description	This note includes a summary of the Pupil Learning Assessment (PB) and Teacher Development Needs Assessment (TDNA) Questionnaires and a description of the PB and TDNA Score Variables in the Public Use Dataset. It describes the pupil skill areas included in the PB questionnaire and the core curriculum topics covered by the TDNA as well as the constructed variables included in the public use pupil- and teacher-level datasets (ml_v2_1_pupil and ml_v2_1_teacher) to allow for analysis of raw scores and/or item response theory (IRT) modelling.
Filename	EQUIP-T IE PB and TDNA questionnaires summary.pdf

Additional Information on Constructed Indicators

Title	Additional Information on Constructed Indicators
Author(s)	Oxford Policy Management Ltd.
Date	2017-02-06
Language	English
Description	This note includes additional information on a constructed indicator in the school-level public dataset that identifies the respondent to the head teacher (HT) instrument.
Filename	EQUIP-T IE additional information on constructed indicators.pdf

Tanzania Poverty Scorecard Instructions (Schreiner 2016)

Title	Tanzania Poverty Scorecard Instructions (Schreiner 2016)
Author(s)	Schreiner, Mark
Date	2016-06-27
Country	Tanzania
Language	English
Abstract	This paper presents the Simple Poverty Scorecard® which uses ten low-cost indicators from Tanzania's 2011/12 Household Budget Survey to estimate the likelihood that a household has consumption below a given poverty line. The scorecard is a practical way for pro-poor programs in Tanzania to estimate the likelihood that a household has consumption below a given poverty line, to estimate a population's poverty rate at a point in time, to track changes in a population's poverty rate over time, and to segment participants for differentiated services.
Filename	Tanzania poverty scorecard instructions (Schreiner 2016).pdf

Other materials

Map of EQUIP-T IE Districts

Title	Map of EQUIP-T IE Districts
Author(s)	Oxford Policy Management Ltd.
Date	2015-05-20
Country	Tanzania
Language	English
Filename	Map of EQUIP-T IE districts.pdf