"What drives success in children's educational outcomes in poor villages in rural West Africa, the case of Guinea Bissau?"

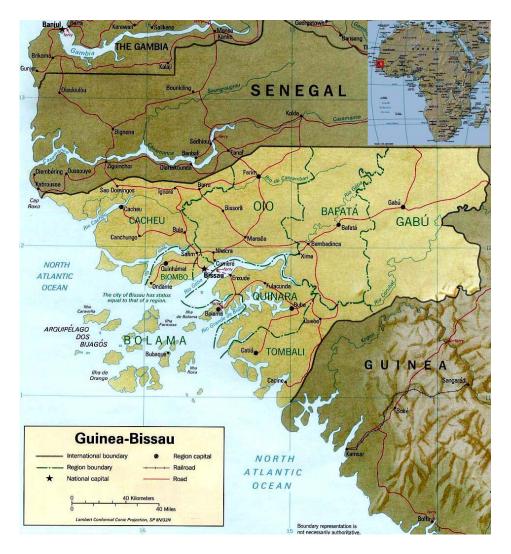


## People & Institutions affiliated

- Peter Boone, Chitra Jayanti, Ila Fazzio, Samory Fernandes, Mike Fadul, Mark Fisher, Filipa Silva of El (Effective Intervention)
- Simon Johnson MIT Sloan, Peterson Institute for International Economics
- Vimala Ramachandran and Kameshwari Jandhyala of ERU (Educational Resource Unit)
- Rukmini Banerji of PRATHAM
- Vera Mann LSHTM (London School of Hygiene and Tropical Medicine)
- LSE (London School of Economics)



## Guinea Bissau



**Population:** 

1.6 million (UN, 2009)

**Area:** 36,125 sq km (13,948 sq miles)

**Major languages:** Portuguese, Crioulo, 22 other African languages

Major religions: Indigenous beliefs, Islam, Christianity

Life expectancy: 46 years (men), 49 years (women) (UN, 2009)

**Monetary unit:** I CFA Communaute Financiere Africaine) = 100 centimes

Main exports: Cashew nuts, shrimp, peanuts, palm kernels, sawn timber

GNI per capita: US \$250 (World

Bank, 2008)

**EDU STUDY** 



## Guinea Bissau

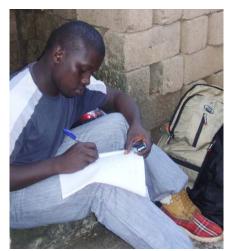
- Guinea Bissau figures as one of the countries with lowest levels of literacy in the world - literacy rate is 15% for women and 47% for men (MICS 2000).
- According to the Guinean Ministry of Education in 2005-2006, only 28% of children of primary school age (7-12 old years) were enrolled in school, about 60% of teachers have no teaching training, and only 14% of schools have a completed primary cycle of six years.
- The language taught is Portuguese which is not the daily language spoken in Guinea Bissau, and many teachers are not proficient in Portuguese.



• EDU study attempts to understand what determines the outcomes of education in rural Guinea Bissau and to use these results to design a program to improve primary education, and raise levels of children's literacy and numeracy.









To answer that question, quantitative and qualitative data are being collected in 200 villages of continental Guinea Bissau.

-- 4 months behind schedule, due to March 2009 events; but catching up...



### Quantitative data that will be collected in stage 2:

#### **HOUSE**

- Socio-economic status
- Occupation of members
- Distance to school

#### **CARE GIVERS**

- Occupation
- Education level
- Reading skills

#### **CHILD**

- Age & sex
- Daily activities
- Literacy & Numeracy performance

#### **SCHOOL**

- Type (management)
- Infra-structure
- Class sizes
- Incentives
- Materials

#### **TEACHERS**

- Age, sex
- Training
- Experience
- Language skills
- Incentives



### Some of the questions:

- How different types of schools are correlated with children's performance in literacy and numeracy?
- To what extent does a family socioeconomic status explain a child's performance?
- Is class size or teachers' training correlated with children's performance?



EDU study designed to be conducted in three stages.

### Stage I

- confirm eligibility criteria for the randomly selected villages
- get consent to participate
- recorded schools attended by resident children



### Stage 2

- survey houses interviewing caregivers
- test all eligible children in randomly selected houses
- survey schools and interview teachers



### Stage 3

- school/classroom observation
- semi-structured interview with teachers
- focus groups' discussion with the community



#### Feb-Nov 2009

Designing and developing: Forms; manuals; and training
Piloting of forms and literacy/Numeracy

#### **Oct-Nov 2009**

Stage 1
Recording and
Mapping of villages
and schools that are
eligible for stage 2

#### Dec 2009-Jun 2010

Stage 2
Quantitative data
collection in houses
and schools & children
testing

#### Jun-Sep 2011

tests

Analysis of stage 3 data & publications Planning Intervention Project

#### Nov-May 2011

Stage 3
Class observations
In depth interviews
Focus groups

#### **Jul-Nov 2010**

Analysis of quantitative data Publication Preparation for stage 3



• From the inventory of all tabancas of Guinea Bissau produced in the 1991 Census [INEC 1991 census] a list with all villages within the population range of 50 to 1,000 people and accessible by land were pre-selected and randomized.



During the stage I of the study, fieldworkers visited 413 villages confirming their eligibility criteria.

The first 200 tabancas that satisfied the criteria in the randomized list were enrolled for the stage 2 of the survey





A village was considered eligible if:

- It was within the population range of 200 to I,000 people
- It was accessible by land during the dry season (October-June)
- It had a minimum of 30 houses
- It agreed to participate (village chiefs/elders)



#### **Results:**

- The mean number of houses in the villages enrolled is 82 (30-500).
- In 54% of the villages enrolled there is not a road with regular transport.
- Except in one village all said that most resident children attend to a school.
- The mean walking distance from these villages to a village with secondary school is 5 hours.
- NGOs were said to be operating in 64.5% of the enrolled villages (international backing).
- Most villages have a 'feeding programme' (mostly WFP for children at school)



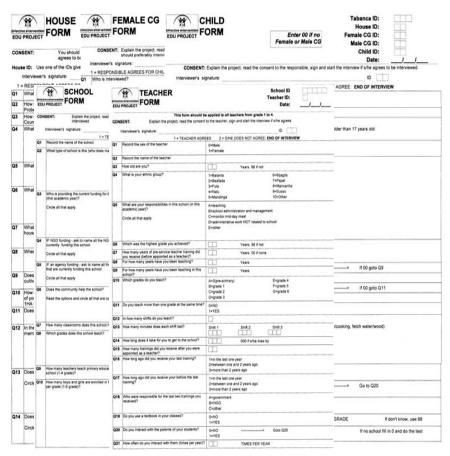
During the stage 2, interviews and tests will be conducted to map the pattern and problems linked to literacy and numeracy in rural Guinea Bissau:

- Interviews to identify the main factors that contribute to achievement and performance in the tests.
- Literacy and Numeracy tests will be conducted during household visit with children between 7 and 17 years old.



#### **FORMS:**

- HOUSE FORM
- FEMALE CARE GIVER FORM
- MALE CARE GIVER FORM
- CHILD FORM
- SCHOOL FORM
- TEACHER FORM



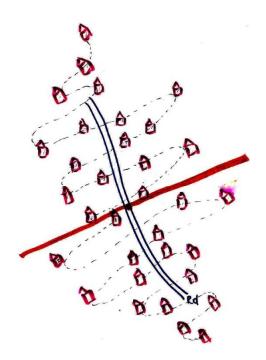


#### LITERACY & NUMERACY TESTS

- Are based on Pratham tests.
- Simple to apply but provide a good 'statistical' measure of a child's performance.
- Were developed after 2 piloting studies and the input from Rukmini Banerji (PRATHAM consultant).



- We will be using the SystRS methodology (Luman, E. T. et al 2007) to do the random selection of households
  - "systematic random sampling" based on assessing vaccination coverage
- For each village a sampling interval is calculated based on an estimated probability of finding an eligible child.
   All houses are marked and a minimum of 20 is visited.





### To be eligible a house:

- Has to be in the selected tabanca.
- Has to be selected through the random walk.
- Has to have at least one eligible child.



To be eligible a child has to:

- Be between 7 and 17 years old
- Be resident in the randomly selected house (i.e. should usually come back to the house every night to sleep)
- Has to be present during the visiting day (s/he has to be tested!)
- Has to have at least one of her/his care givers present during the visiting day for an interview.



### Eligible Schools are:

- All schools that provide education in Portuguese for the children resident in the enrolled tabancas are eligible for inclusion in this survey.
- A list of these schools that serve the children resident in the selected tabancas with their respective location was gathered during the stage I of the survey (Tabanca Form).

### Eligible Teachers are:

• All teachers 1st to 4th grades in any eligible school.



- In the 3rd stage, qualitative tools will be used to investigate in depth some of the questions that remained unsolved and adding information that will be useful when designing the program.
  - Structured observation in the classroom



- A sub-sample of 20 tabancas will be selected for the third stage of the study according to the results obtained during the first stages (quantitative research).
- During stage 3 a detailed investigation of the classroom activities and engagement of the community will be carried out. These will help both in refining our understanding of the determinants of education and to guide us in designing a program to improve literacy and numeracy in rural Guinea Bissau.



### The tools for this stage are:

- Detailed school/classroom observations to understand what teachers are doing in the classroom and whether/how they are following the curriculum.
- A semi-structured interview with teachers to assess teachers' training and perception children
- Focus groups' discussion with the community to access their willingness to support children's education



## El work in Guinea Bissau

- Effective Intervention has a trial named EPICS Enabling Parents to Increase Child Survival in the regions of Quinara and Tombali in the south of Guinea Bissau (one of the most inaccessible areas of the country)
- EPICS is a cluster-randomised controlled trial (CRCT)
   elaborated after a Baseline Survey (to map villages and
   establish the basis for the trial) that includes a Research and
   an Intervention arm.
- These regions have been subdivided into 146 "clusters" or areas. Initially, the intervention is being implemented in 73 of these clusters during the trial's two-year duration, and the remaining 73 clusters will receive the intervention when the trial terminates



## El work in Guinea Bissau

- The objective of the programme is to rapidly reduce maternal and child mortality in these regions at low cost.
- To develop correct treatment seeking behaviour and levels of health knowledge through an intensive health promotion programme, alongside facilitating access to basic health care for pregnant women and children.



## El work in Guinea Bissau

The key components of the intervention package are as follows:

- Health Clubs community organisations running participatory approaches to health promotion.
- Mobile Clinics outreach services providing basic health services in the community, vaccinations, antenatal and postnatal consultations and monitoring of high risk women and children.
- Emergency obstetric care coverage for all women registered under the trial including cost of evacuation, caesareans and any other hospital intervention up to the value of 50,000cfa.
- Provision for free elected institutional delivery for any woman and subsidy for high risk women to deliver at hospital.
- Training and equipping of community health volunteers in community IMCI, providing free medicines for target conditions diarrhoea, malaria and pneumonia and supportive counselling for community management of malnutrition.
- Training of traditional birth attendants in safe pregnancy and childbirth; immediate and follow-up care of the newborn and mother.

