

MUVA: inquérito de literacia e numeracia funcional

Conteúdo

- **Motivation:** Why did we do this work?
- **Objectives:** What did we try to measure and why does it matter?
- **Methodology:** Survey set-up, instruments, and levels of functional literacy and numeracy.
- **Results:**
 - What are the levels of literacy and numeracy among the youth in Maputo and Beira?
 - How are these related to gender, schooling, and economic activities?



Motivation: Why did we do this survey?

- MUVA Urban Youth Survey gave us data on young people's "level of education" (highest class completed)
- However, we know that the level of education does not directly translate into skills and knowledge
 - Highest class completed is not a good proxy for what young people *actually* can do at the workplace
- Experience from our projects show that even young people from 10th and 12th grade struggle with basic everyday workplace reading, writing, and numeracy tasks.

Objective: What did we try to measure?

- Hence, we decided to go back to a sample of participants in our original MUVA Youth Survey to measure their ‘workplace literacy and numeracy’
- We defined this as “a level of reading, writing and calculation skills sufficient to function in the particular community in which an individual lives and **to effectively execute the tasks required at their place of work.**” (Borrowed from UNICEF)
- This means we are interested in skills like: ability to **comprehend, use, produce, and record information and calculations needed to get a job done right and on time.**
- These are **not the necessarily the same skills that are needed to get good grades in school.**

Objective: Why does it matter?

Functional illiteracy is a world-wide problem:

- For example, in the US, **business losses attributed to basic skill deficiencies** run into billions of dollars a year due to low productivity, errors, and accidents attributed to functional illiteracy (Northeast Institute 2001).
 - **12%** of the adult population in the US is at the “**below basic**” level for document literacy, **22%** are at the “**below basic**” level for quantitative literacy (National Centre for Education Statistics).
 - Every year 100,000 children leave school functionally illiterate in the UK (UK Department for Education)
- We suspected that **Mozambique** faces similar issues but we **do not know** – there is no data.
- We wanted to develop an assessment tool that allows to measure these skills and could also be used in other contexts, by interested stakeholders, to assess functional literacy and numeracy.

Methodology: Survey set up

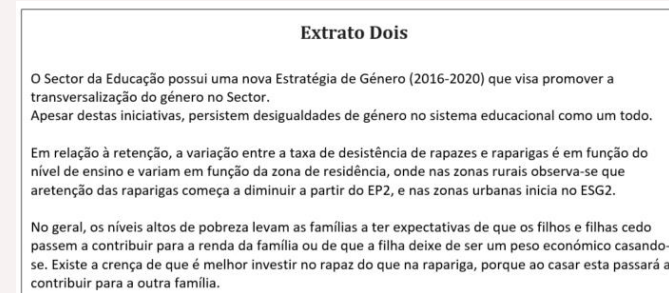
- We did a follow-on survey from the MUVA Urban Youth Survey from 2017 and revisited half of the original sample
- Sampling approach yields estimates representative of the population of 15-25 year olds in poor areas in Maputo and Beira
- Survey implemented in November 2018

	Maputo	Beira	Total
Male	333 (21%)	332 (21%)	665 (42%)
Female	468 (29%)	467 (29%)	935 (58%)
Total	800 (50%)	800 (50%)	1,600 (100%)

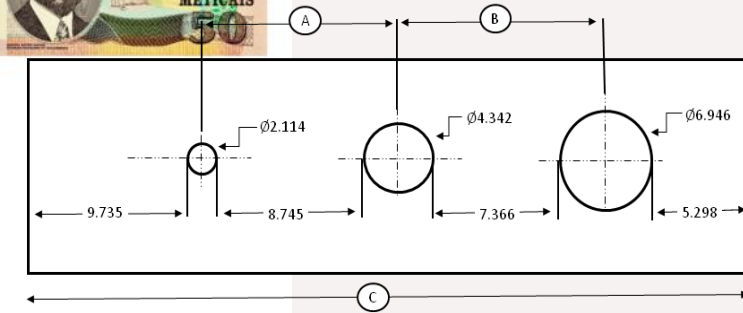
Methodology: Instruments

- We developed an assessment tool that we administered to young respondents in interviews, based on observed, real-life examples from work places in Maputo and Beira.
- The result was an iterative interview process using real life texts and calculation examples
→ **NOT a “school type” exam or test**

test

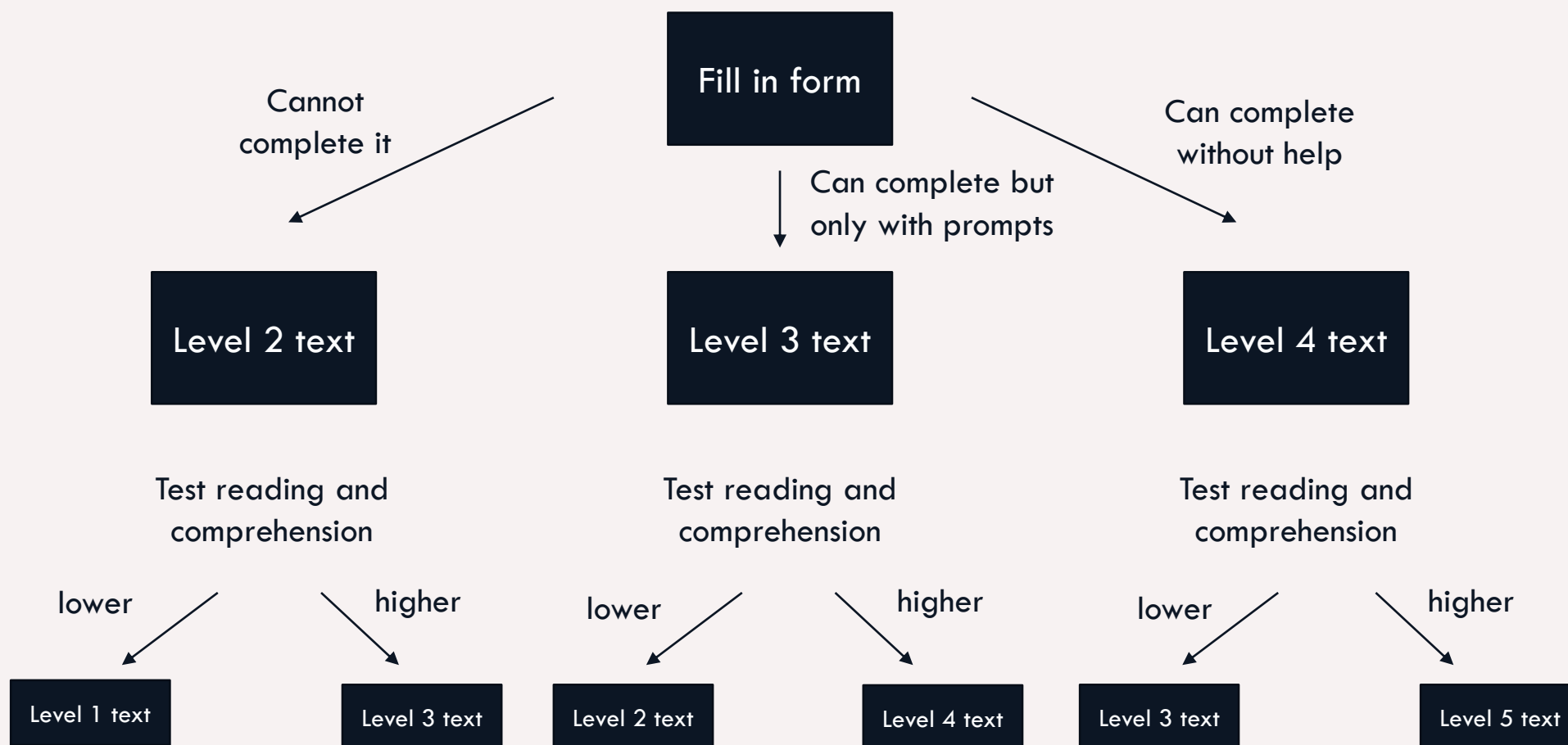


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Methodology: Instruments

The assessment tool is iterative:



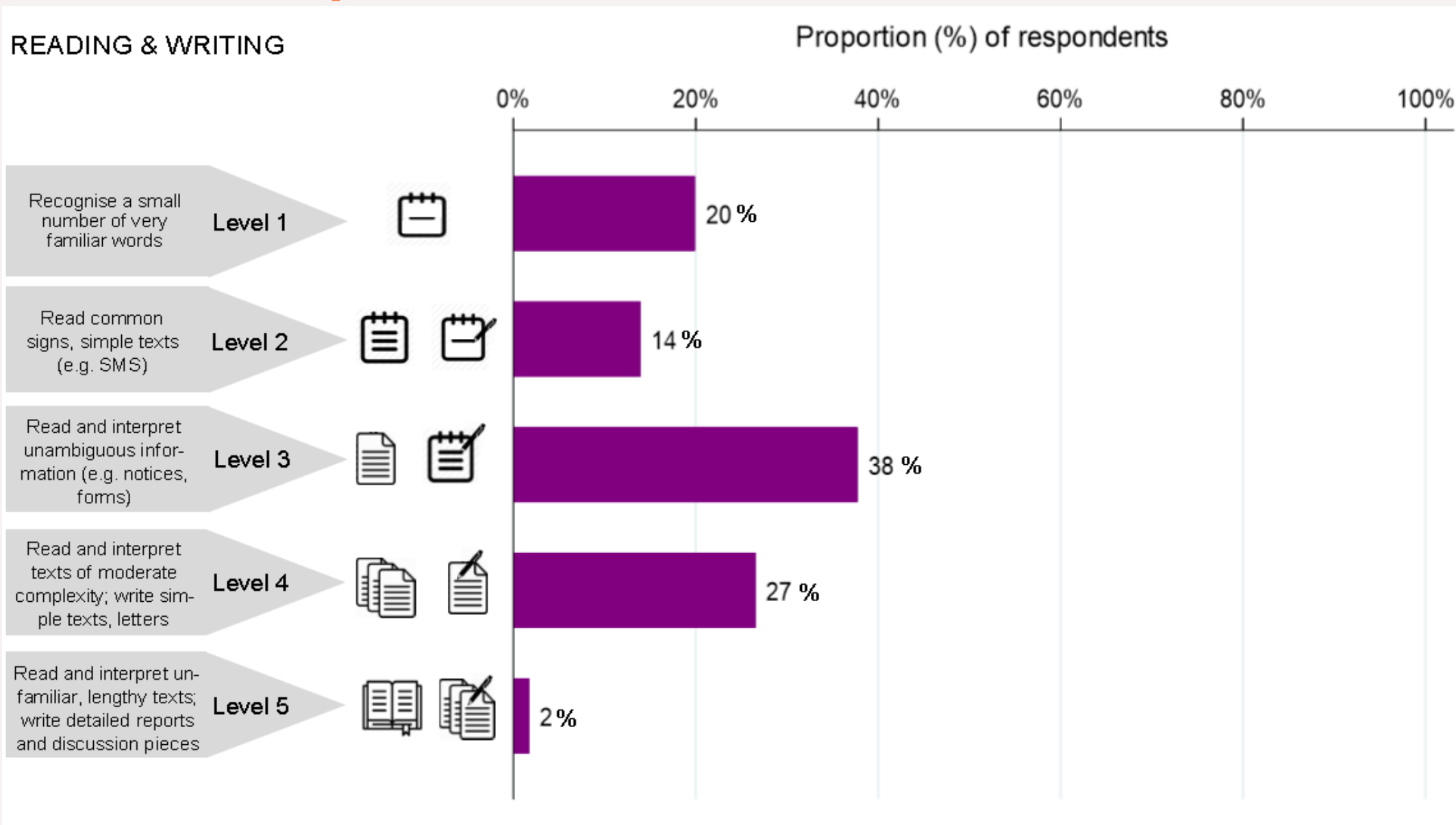
Methodology: Levels

Level	Literacy	Numeracy
1	Recognises the meaning of some common signs and words	Whole numbers up to 10, common notes and coins, oral day markers
2	Reads and interpret common signs, short texts (e.g. SMS) – reads word by word	Whole numbers into 100s, add/subtract whole numbers and familiar monetary values, use language of shape and size
3	Reads and interprets shorter public notices – answers simple questions about their content (orally)	Whole numbers into 1000s, simple every day fractions, decimals, percentages, limited range of calculations with four operators
4	Reads and interprets an official form – writes a summary paragraph about certain elements	Routine fractions, decimals, percentages, familiar statistical data and graphs, familiar maps and plans.
5	Reads two complex extracts about a similar issue – writes a longer text (300 words) comparing the two texts	Unfamiliar contexts – fractions, decimals, percentages, proportions, positive/negative numbers, statistical data in tables and graphs, detailed maps and plans.

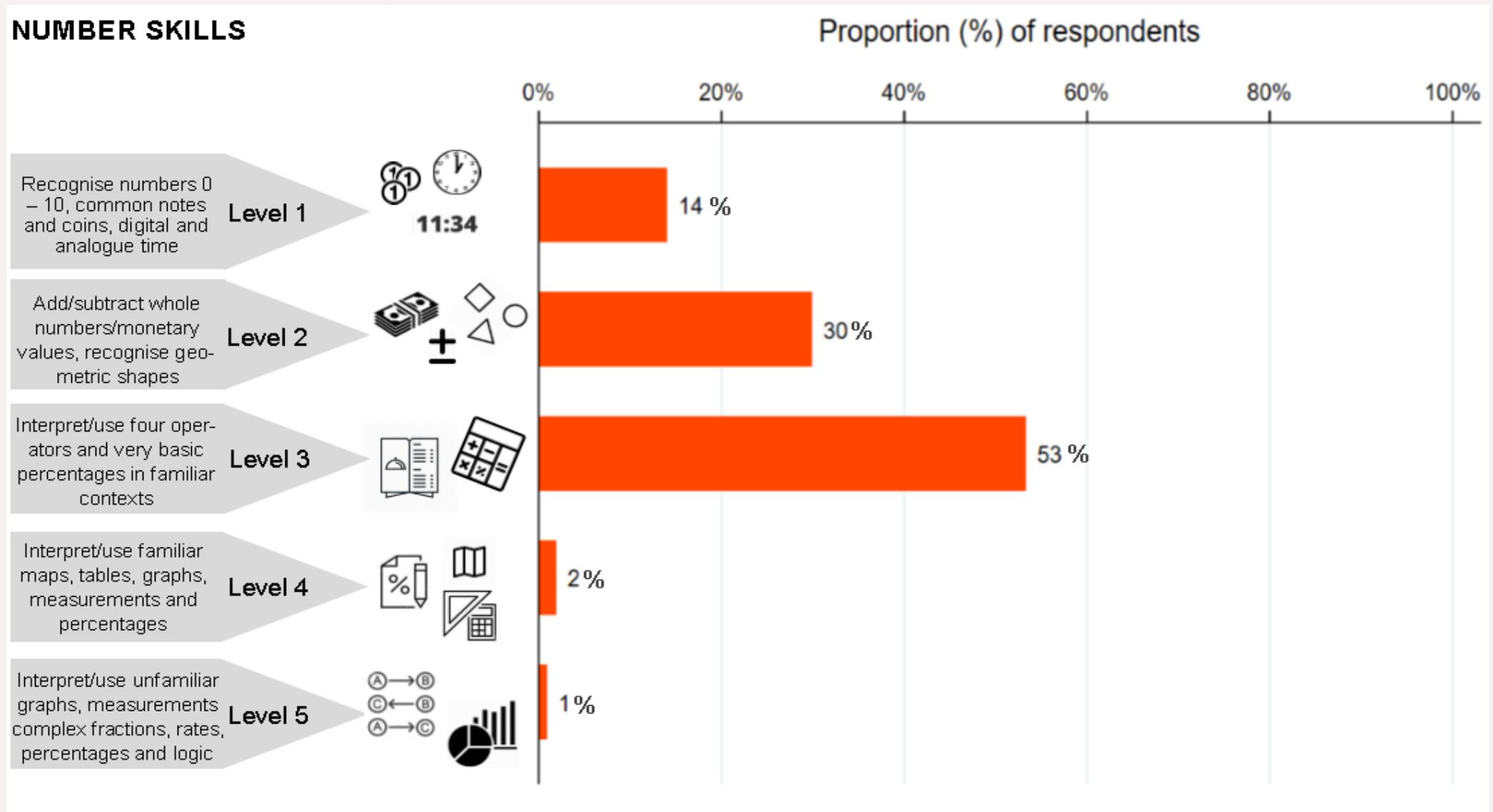
Results



Results: literacy

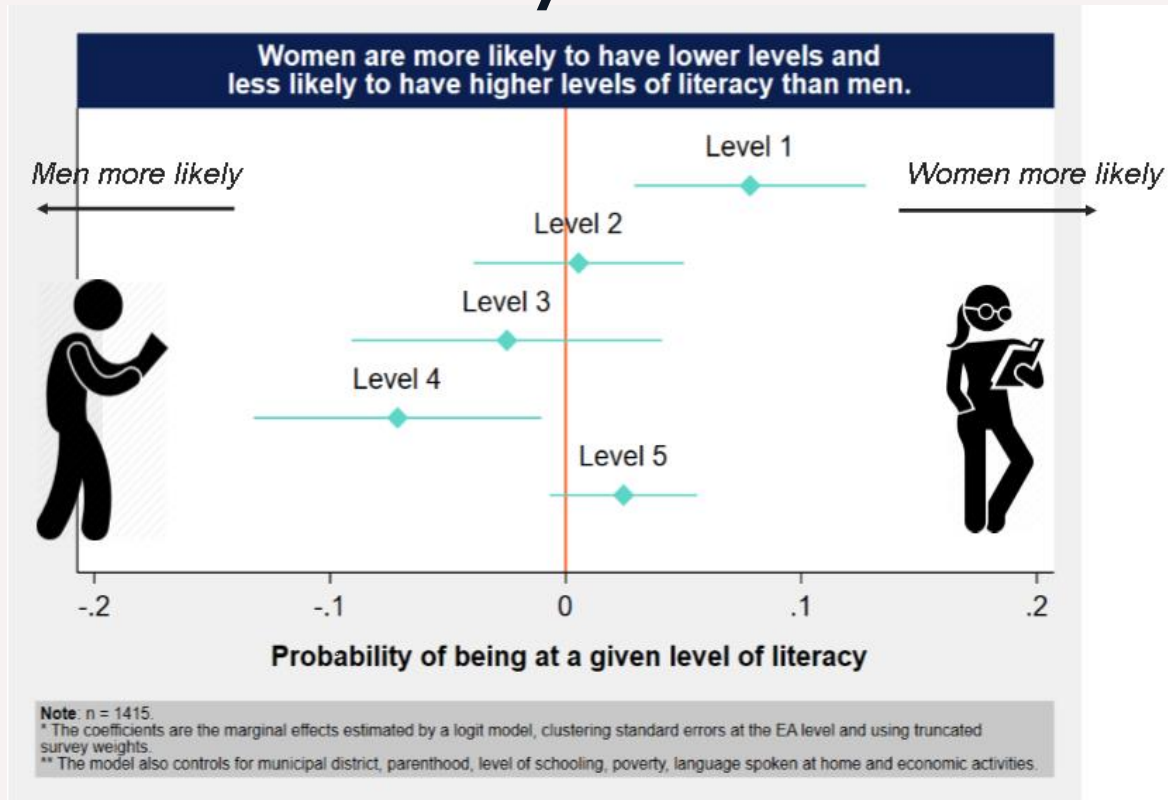


Results: numeracy

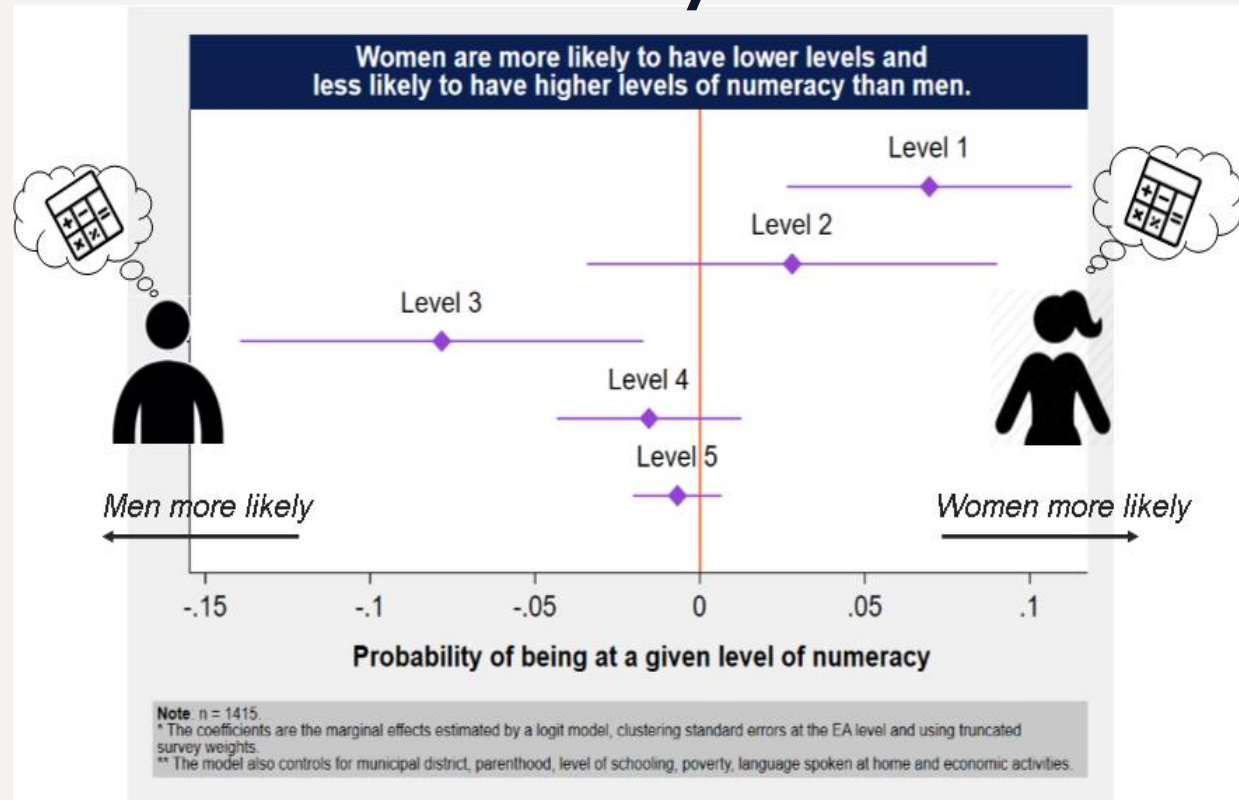


Results: women are more likely to have lower levels of numeracy and literacy

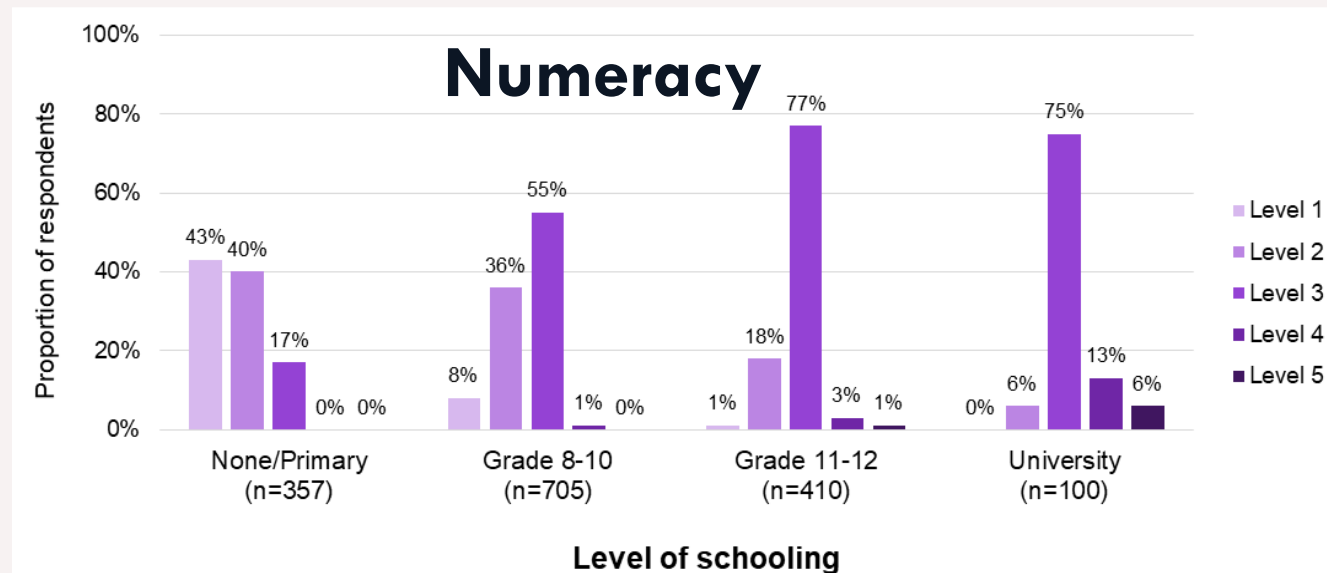
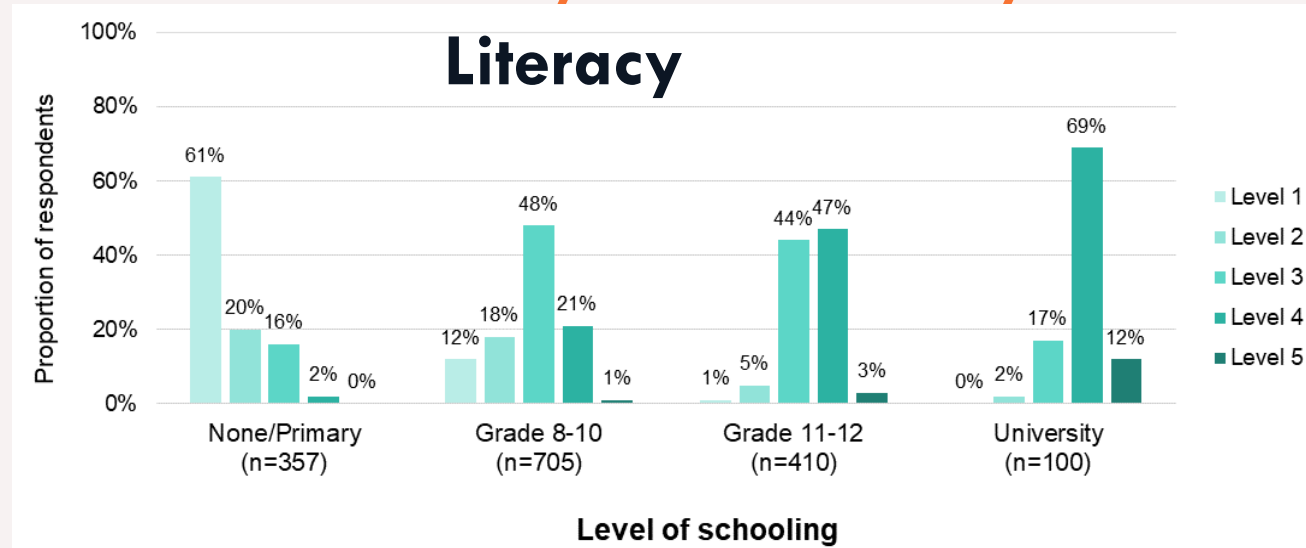
Literacy



Numeracy

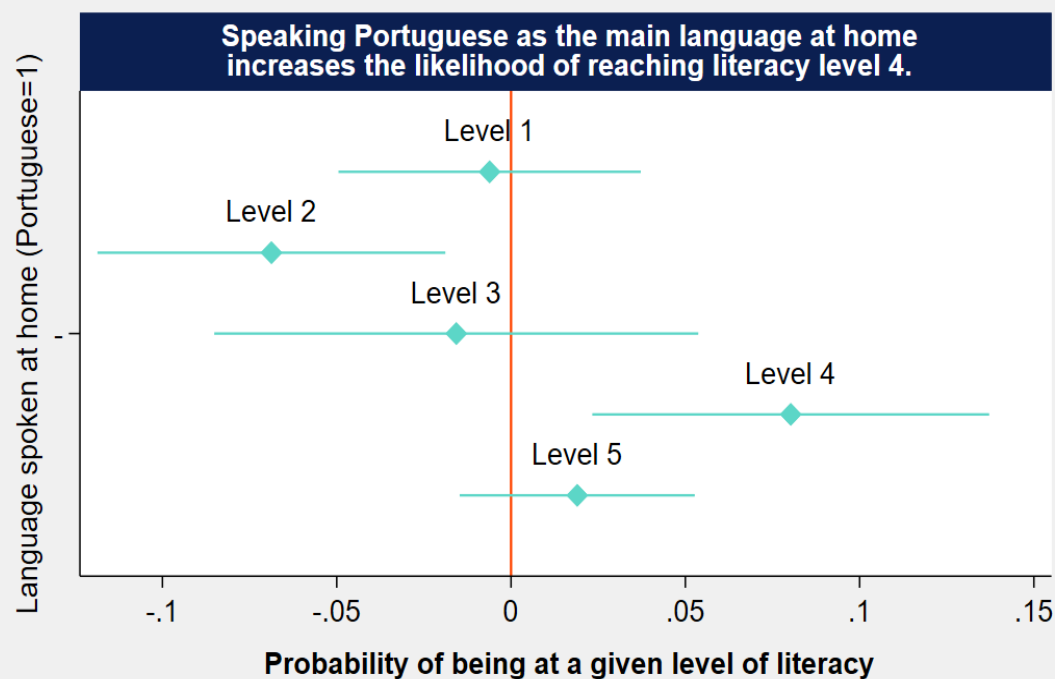


Results: education matters, but even university graduates struggle to reach high levels of numeracy and literacy



Results: the main language spoken at home matters for literacy but not for numeracy

Literacy

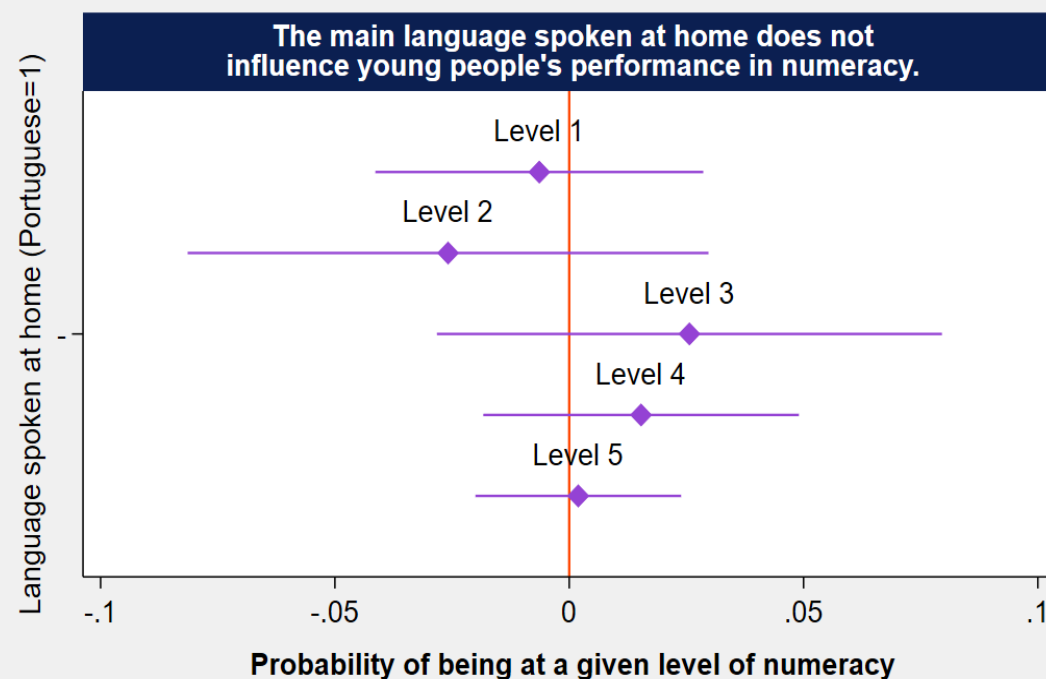


Note: n = 1415.

* The coefficients are the marginal effects estimated by a logit model, clustering standard errors at the EA level and using truncated survey weights.

** The model also controls for gender, municipal district, parenthood, level of schooling, poverty and economic activities.

Numeracy



Note: n = 1415.

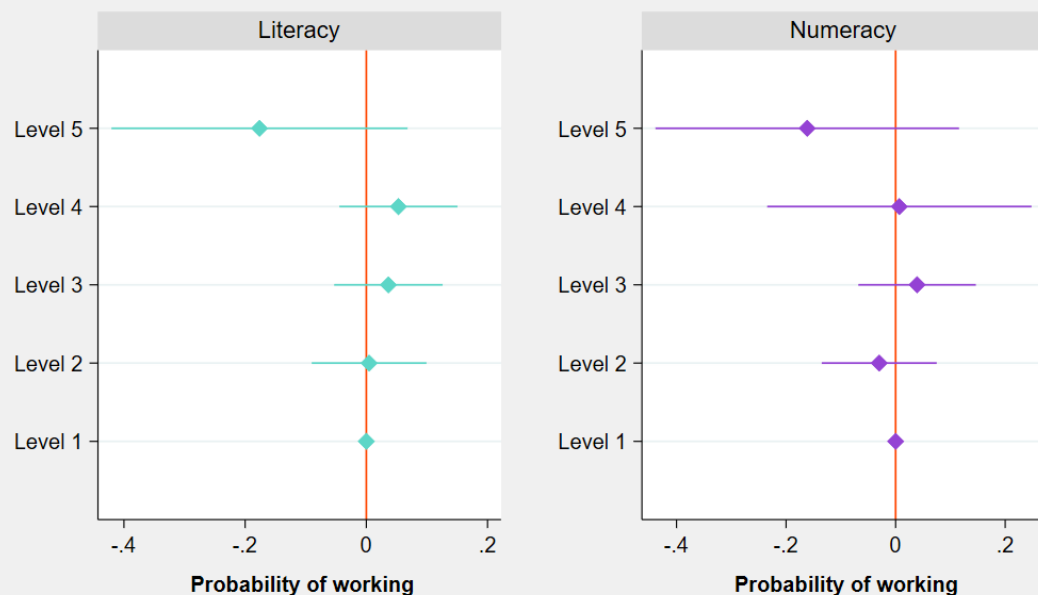
* The coefficients are the marginal effects estimated by a logit model, clustering standard errors at the EA level and using truncated survey weights.

** The model also controls for gender, municipal district, parenthood, level of schooling, poverty and economic activities.

Results: literacy and numeracy levels are related to the type of economic activity of young people

Any job

Literacy and numeracy skills do not play a significant role for whether or not young people engage in any remunerated activity.



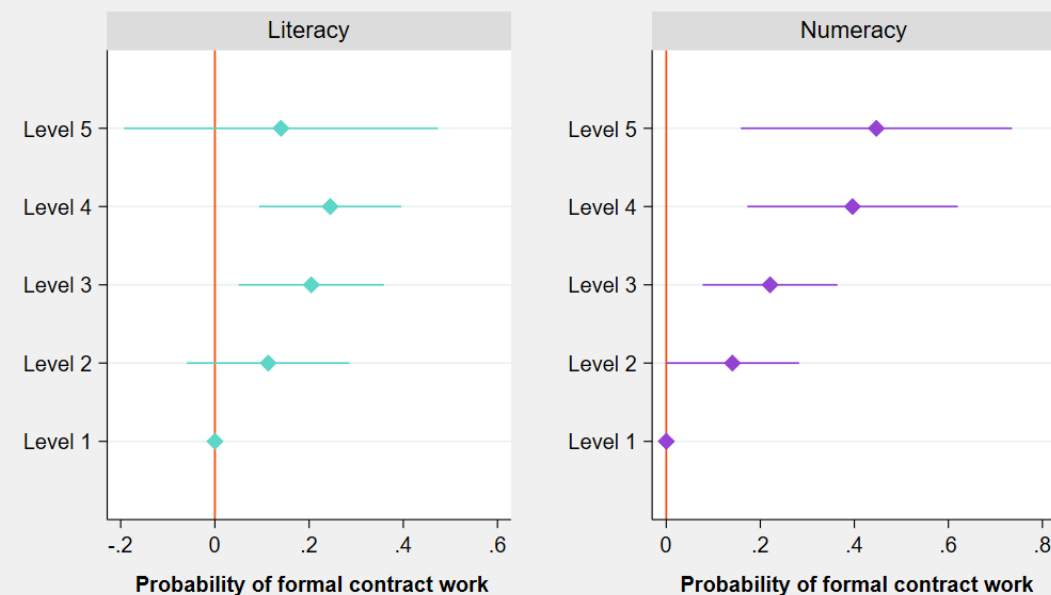
Note: n = 1419.

* The coefficients are the marginal effects estimated by a logit model, clustering standard errors at the EA level and using survey weights.

** The model also controls for gender, parenthood, municipal district, language spoken at home and household poverty.

Formal contract with job

Young people with higher levels of literacy and numeracy are considerably more likely to have a job with a formal contract.



Note: n = 566.

* The coefficients are the marginal effects estimated by a logit model, clustering standard errors at the EA level and using survey weights.

** The model also controls for gender, parenthood, municipal district, language spoken at home and household poverty.

Implications

- Our instrument can be used to assess **functional literacy and numeracy**.
- Very few individuals reach levels 4 or 5 of numeracy:
 - *Most cannot deal with fractions, decimals, or statistical information.*
→ This is not uncommon when looking at numeracy assessments in other countries but seems to be particularly severe in Mozambique.
- Very few individuals reach level 5 of literacy:
 - *Most cannot read, interpret, and write complex texts.*
- Women have – generally speaking – lower levels of functional literacy and numeracy.
- Education matters – but even university graduates struggle to reach higher levels of numeracy and literacy.
- High levels of literacy and – in particular numeracy – are associated with **high quality jobs**.



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