They Got Mad Skills

The effects of training on youth employability and resilience to shocks

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Main constraints HH enterprises face:

- Limited capital
- Low skills
- Limited resilience to shocks

HH enterprises

Necessity entrepreneurs more similar (non-cognitive) to wage workers than large firm owners

Little evidence on how to influence entrepreneurial treats for lowest skill (Calderon et al., 2016; del Mel et al., 2010)

Main constraints are lack of capital and skills, more pronounced when led by youth

These may be acting as multiple binding constraints (Blattman et al., 2014; Brixiová et al., 2014, Blattman and Ralston, 2015)
Contribute to policy on youth employment opportunities in low-income and fragile contexts

1. Identify **what types of skills interventions** can improve MSE development and employment

2. Understand the **process of skills formation**, and implications for targeting

3. Understand how these interventions help **build resilience to shocks**.
Main Conclusions and Policy Recommendations

1. The combination of capital and skills is effective in promoting employment and entrepreneurship.

2. Basic transfers on top of capital for productive purposes are vital to prevent that basic consumption needs (from the poorest) limit productive impacts, especially during shocks.

3. Providing basic literacy and numeracy is necessary in some settings, and non-cognitive skills are malleable later in life in fragile settings.

5. Simple non-cognitive skills tests may be useful for improving program targeting.

6. Even programs with gender neutral design can benefit women, and marginal improvements could further enhance impacts.
Intervention

- Skills + Capital-centric intervention: urban youth (15-35) with some secondary education

- Implementation: NGO HELP-SL through 13 technical & vocational education centers, using standard curricula

- Coverage: 5 main urban areas

- Participation incentives: Stipend linked to attendance (US$ 0.6/day)
Experimental Design and Data

- Eligible applicants randomly assign to:
  - A. Technical skills + On-the-job Training (“Technical +OJT”)
  - B. Business Clubs + Microfinance Facilitation (“Business skills”)
  - C. Full package (A + B)
  - Control group. No treatment

- Intervention lasted 9-months, follow up collected 6 months after the program ended (2 years after baseline)

- High Take up: Participation in lottery (86%), Participation in program (10% did not comply, and 6% of control participated)

- Ebola Crisis:
  - Affected economy through labor supply and demand, productivity, and
  - Disrupted program by effectively nullifying the capital intervention (reduced to cash through stipend, 80 vs 44 USD), interrupting OJT

- Attrition was moderate (16%) given the Ebola crisis context, no bias due to randomization
Estimating equation (ITT)

\[ Y_{t,ij} = \alpha_j + \beta_1 \times \text{Treat}_i + \beta_2 \times (Y_{t-1}) + \beta_3 \times X_{t-1,ij} + C_j + \varepsilon_{t,ij}. \]

- \( Y_{t,ij} \) = outcomes of interest for individual \( i \) in center \( j \) at follow-up \( (t) \)
- \( Y_{t-1} \) = outcome for individual \( i \) at baseline
- \( \beta_1 \) = effect of the random assignment to treatment
- \( X_{t-1,ij} \) = individual characteristics measured at baseline
- \( C_j \) = time-invariant center effects

The Intention-to-Treat coefficient compares the outcomes among individuals who were originally assigned to receive the treatment with the outcomes among individuals who were assigned to the control group, regardless of whether the individual actually took part in the program.
Program increased employment, earnings, and entrepreneurship

- Overall levels of employment increased: share of men engaged in self-employment more than doubled, may suggest program helped disrupt gender norms
- More first-time entrepreneurs, thus promoting entrepreneurship amongst youth
- Shifted type of business to trade and shop-keeping (resembling general population)
- Reduced volatility: Profits ↑ 25% in the worst month
- Monthly earnings ↑ 32% compared to control group, driven by change amongst women ↑ 64% (conditional on employment)

**Impact on employment and entrepreneurship outcomes**

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<tr>
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<th>Control</th>
<th>Overall treatment</th>
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<tbody>
<tr>
<td>Employed</td>
<td>12.6%</td>
<td>15.7%</td>
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<tr>
<td>Likelihood of being a first time entrepreneur</td>
<td>15.8%</td>
<td>19.9%</td>
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<td>Business type: Trader, shopkeeper</td>
<td>75.4%</td>
<td>83.2%</td>
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Program also built household resilience against shocks from the Ebola crisis

- Monthly per capital (pc) consumption \(\uparrow 53\%\) of both food, non-food items, and other lumpier expenses
- Increase total assets owned and improved living conditions (sanitation facilities).
Program increased capital stock and amounts borrowed, but did not change access to loans or spending

- 23% in capital stock, but only men and participants in the “business skills” arm yield statistically significant results
- Treated youth did not gain more access to loans, partly due to Ebola disruptions
- However, entrepreneurs borrowed 73% more, in line with larger reported start up capital requirements

Overall impact on capital

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<th>Treatment</th>
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<tbody>
<tr>
<td>Amount needed to start a business</td>
<td>828,633</td>
<td>1,435,192***</td>
</tr>
<tr>
<td>Amount borrowed to start a business</td>
<td>515,294</td>
<td>893,519**</td>
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Program had overall positive effects on cognitive and non-cognitive skills, and business practices

- **Cognitive skills** — increased verbal working memory, linked to innovation
- **Non-cognitive skills**
  - Impulse control, linked to business growth potential
  - Multitasking abilities and locus of control, linked to entrepreneurship
- **Business practices**, keep separate financial records (8.3% to 13%)

### Overall impacts on cognitive skills

- Verbal memory (6 digits or more)
  - Control: 65.1%
  - Overall treatment: 71.4% *****

### Overall impacts on non-cognitive skills

- Impulse control
  - Control: 3.5
  - Overall treatment: 3.6 *****

- Locus of control
  - Control: 3.2
  - Overall treatment: 3.3 *****

- Multitasking
  - Control: 2.1
  - Overall treatment: 2.2 *****
Who benefits more from skills development training?

- **Higher initial skills**
  - Employment, earnings, capital stock
  - In short term, better able to use skills acquired for productive end

- **Lower initial skills** (also the poorest)
  - Cognitive and non-cognitive skills
  - In short term, use capital to smooth consumption

- **Women**, even if program design is gender neutral, marginal improvements could enhance impact (e.g. childcare)

- Also, was **not able to find evidence that packages are additive**, e.g. Business training alone more effective at promoting entrepreneurship
THANK YOU

Photo credits: Andrea Martin and Samantha Zaldivar.
Impact Evaluation assesses overall impact & relative effectiveness of different interventions

- **Intervention lasted 9-months (6 classroom + 3 on-the-job training):**
  - **A.** Technical skills + On-the-job Training ("Technical +OJT")
  - **B.** Business Clubs + Microfinance Facilitation ("Business skills")
  - **C.** Full package (A + B)
  - **Control group.** No treatment

- **Random assignment based on public lottery:**

  - **Step 1.** Communication to attract beneficiaries
  - **Step 2.** Info session, 2-day training on business proposal submission (5,250)
  - **Step 3.** Identification of proposals passing the quality criteria (3,854)
  - **Step 4.** Random assignment through public lottery, with gender stratification (3,319)

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<tr>
<td></td>
<td>791</td>
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<td>943</td>
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Experimental Design and Data

- Intervention lasted 9-months, eligible applicants randomly assign to:
  - **A.** Technical skills + On-the-job Training ("Technical +OJT")
  - **B.** Business Clubs + Microfinance Facilitation ("Business skills")
  - **C.** Full package (A + B)
  - **Control group.** No treatment

- Ebola affected (i) economy through labor supply and demand, productivity, and (ii) nullified the capital intervention (80 vs 44 USD)

- Follow up collected 6 months after the program ended (2 years after baseline)
- Attrition was moderate (16%) given the Ebola crisis context, no bias due to randomization