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YEN briefs

The Youth Employment Network

Understanding the Strong Link Between Program Implementation and Impact Evaluation

A rigorous impact evaluation of Uganda's Entrepreneurship Education National Curriculum presents several lessons in terms of evaluation design and process.

Key Messages

- Entrepreneurship education has the potential to promote youth entrepreneurship which can provide an alternative path to formal employment, thereby influencing labour market outcomes. Yet there is limited evidence on the impacts of different entrepreneurship programs.
- Choosing the right evaluation design and communicating about it with all relevant stakeholders are central to the success of a prospective impact evaluation (i.e. one that is designed before program implementation starts).
- Program implementation and impact evaluation are always closely linked and require careful planning. Unplanned changes at the implementation stage lead to a sub-optimal evaluation which might not be able to measure impact.

Contents:

The Youth Employment Network

The Youth Employment Network (YEN) is an inter-agency partnership of the International Labour Organization (ILO), the World Bank and the United Nations set up in 2001 to provide new solutions to the youth employment challenge.

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The *YEN Briefs* is a note series developed by the Youth Employment Network to disseminate lessons learned from YEN's Monitoring and Impact Evaluation work.

Background

The limited absorptive capacities of existing formal labour markets highlight the importance of self-employment as an alternative career option. However, educational systems in East Africa as well as in other developing regions often lack the appropriate frameworks to prepare young women and men to enter into productive self-employment. As a result, school-to-work transition remains a challenge.

Offering entrepreneurship education has the potential to build young people's knowledge and skills either "about" or "for the purpose of" entrepreneurship. It is meant to instill entrepreneurial awareness, motivation, and basic business skills in youth, thereby influencing labour market outcomes. Nevertheless, the evidence to support positive labour market impact of entrepreneurship education is very limited. Recently, a number of studies have measured the effectiveness of entrepreneurship programs aimed at secondary school or higher education level with particular focus on entrepreneurial intentions. The results are mixed. Some studies find positive effects on entrepreneurial intentions (Peterman and Kennedy, 2003; and Souitaris et al., 2007)[1] while others find no or negative impact (Oosterbeek et al., 2008; and von Graevenitz, 2010).[2]

In Uganda

Between 2010 and 2011, the Youth Entrepreneurship Facility (YEF)[3] provided financial and technical assistance to the National Curriculum Development Centre (NCDC) of Uganda for the revision of their entrepreneurship curriculum. This assistance was provided following the ILO's Know About Business (KAB)[4] entrepreneurship education program that aims to create an enterprise culture among young students. The revision was scheduled to be pilot tested in 2012 in 100 schools. However, in the last quarter of 2011, the Government decided to replace the pilot test of the revised curriculum with a national roll-out to take place in 2012 with the new cohort of Senior 5 (S5) students. Training workshops for teacher educators and school teachers were conducted between November 2011 and January 2012.

Impact Evaluation

In October 2011, YEF partnered with Innovations for Poverty Action (IPA)[5] to evaluate the impact of the revised entrepreneurship education curriculum in upper secondary schools in Uganda. The initial decision on the implementation of the curriculum was to conduct a pilot to test the new curriculum which allowed for the evaluation to compare outcomes of students taking the new entrepreneurship class against students in control schools following the former curriculum, using a standard Randomized Control Trial (RCT). RCT designs can be used when the evaluation is planned in advance of implementation and when the program can serve only a fraction of eligible youth. This allows for a well matched comparison group (see *Figure 2*).

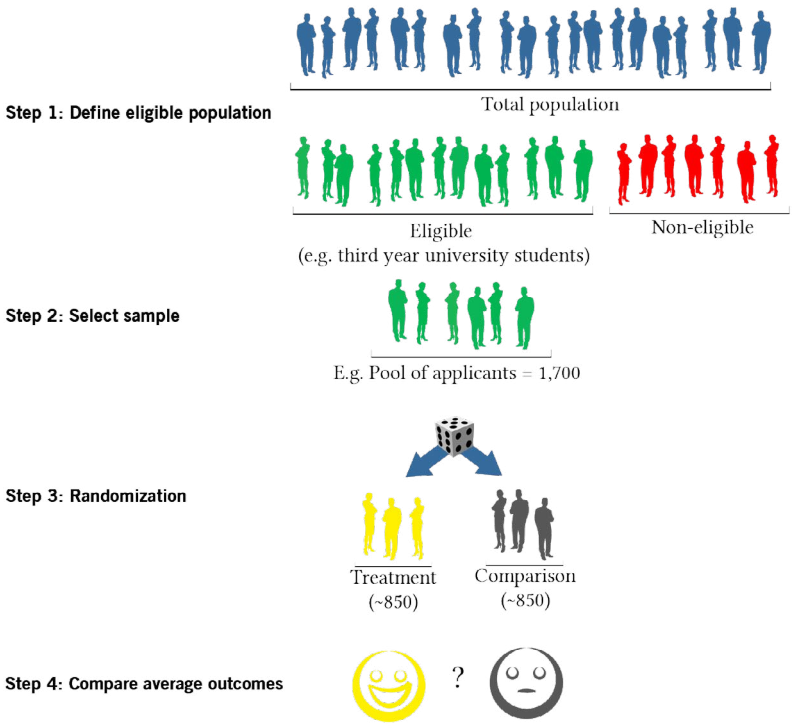
New Evaluation Design and Identification Strategy

As the decision to pilot the curriculum was replaced by the national roll-out, the evaluation design had to be re-discussed in the context of lacking the natural control group of schools and youth randomly excluded from the pilot. In a scenario of national roll-out where the new curriculum is available to anyone and every school, the most appropriate evaluation design is often randomized promotion design (RPD). This means, instead of randomizing

Figure 1. Timeline of Activities

- 2010-2011: Assistance to revise the entrepreneurship curriculum to be piloted in 100 schools
- Oct 2011: Decision to conduct an impact evaluation of the revised entrepreneurship curriculum with a Randomized Control Trial (RCT)
- Q4 2011: Government decision to replace pilot test with national roll-out
- Q4 2011: Evaluation design evolved from RCT to a Randomized Promotion Design
- Nov 2011-Jan 2012: Training workshops for educators
- Dec 2011-Jan 2012: Identification of schools and randomization
- Feb-Mar 2012: Promotion campaign (treatment)
- Mar-Apr 2012: Low take-up among promoted schools
- Mar-Apr 2012: Decision to halt the impact evaluation

Figure 2. What is a randomized control trial?[6]



How it works

- Gives each individual/group the same chance of receiving the program
- Compares outcomes of those randomly selected with those not selected
- Since selection is done randomly, participants are likely to have the same characteristics on average.

Advantages

- Most robust impact evaluation method
- Analytically simple (impact = difference in average outcomes)
- Can involve communities in selection process (fair and transparent)

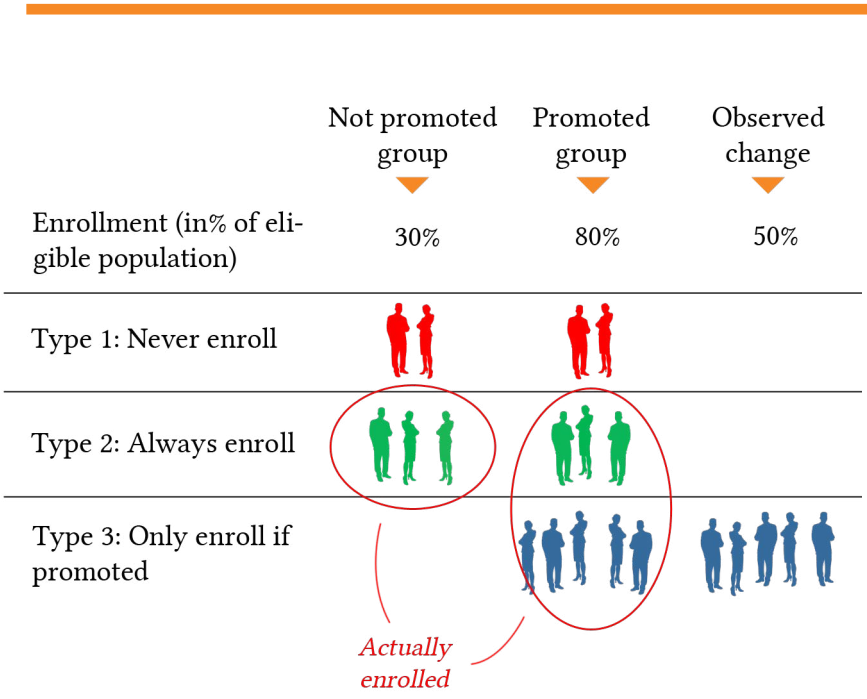
Disadvantages

- Requires comparison group to be excluded from the program for the duration of the impact evaluation
- May be politically more difficult
- Validity depends on the fact that randomization works and is maintained

those who receive the services, we randomize who is encouraged to receive those services. The evaluation objective therefore evolved to compare the outcomes of all those youth who received the promotion with those who did not receive the promotion (see *Figure 3*).

With the help of the Ministry of Education and Sports (MoES) and NCDC, between December 2011 and January 2012 the evaluation team started the identification of 400 schools across Uganda for the promotion campaigns. Upon determining which schools both agreed to participate in the study and had sent their entrepreneurship teachers to NCDC's training, 200 interested schools were randomly assigned into treatment (promotion would take place in those schools) and control (no promotion) groups (see *Figure 1* for timeline of activities).

Figure 3. What is a randomized promotion design?



How it works

- Randomly promotes the program to a subset of the eligible population (increases likelihood to enroll)
- Since encouragement is done randomly, not promoted group and promoted group have the same characteristics on average
- Compares average outcomes of those who received the promotion with those who didn't.

Advantages

- Robust methodology (high-quality comparison group)
- Never denies anyone to receive the program

Disadvantages

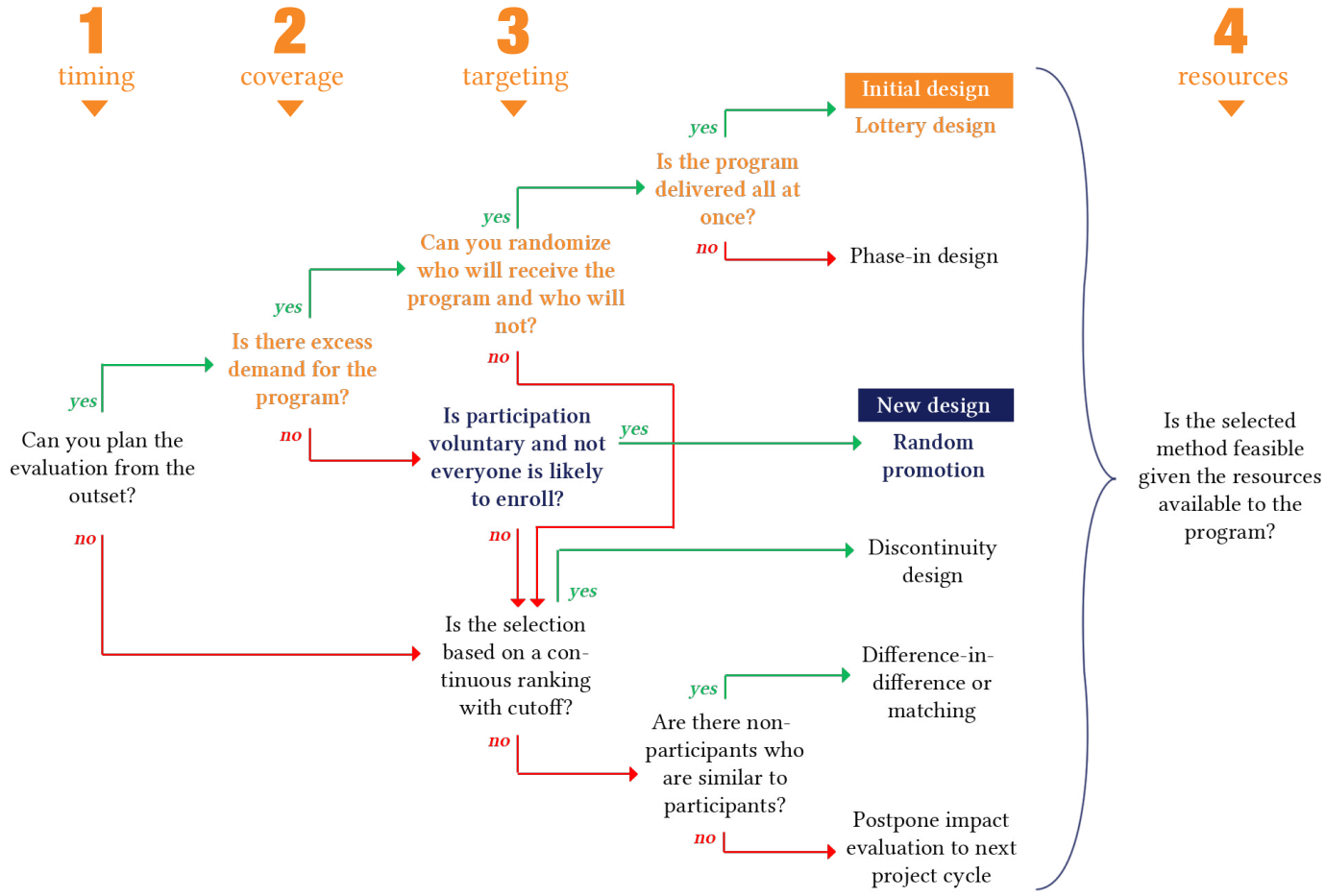
- Can only be used for specific programs (universal eligibility with voluntary participation)
- Often needs larger sample size, increasing cost
- Results cannot be generalized beyond those who participated because of encouragement

Photo credit: Vianney Mbonigaba, IPA

For the RPD design to work, it needs to be able to influence substantially the take up of the entrepreneurship course by the secondary school students. Yet the promotion campaign failed to entice them. Conversations with students and teachers during the promotion indicated a general interest in entrepreneurial training and an appreciation for its benefits. However, while IPA was working in the selected schools, it became apparent that the promotion campaign was not working, owing largely to lack of information and limited socialization of the curriculum. In this case, secondary level students are highly concerned with their performance and ability to gain a university education. If a program that entails the alteration of the national education curriculum is being implemented without providing full information, resistance is natural. Mitigation strategy would be to provide complete information on the course, materials, and any effects on university admissions. Moreover, the program also needed to gain buy-in from other stakeholders like teachers and educators who greatly influence student's decisions. Students' class combinations are often pre-determined by their school administrators so many students who wanted to take the class were prevented from doing so. As a result, the evaluation team found very little difference in the take up rate of students in promoted and non-promoted schools (about two more students enrolled on average than in non-promoted schools).

The decision to switch from RCT to a RPD was logically made as explained in *Figure 4*. This decision tree clearly shows how implementation features influence decisions in the evaluation design. Consequently, changes in implementation will have consequences on the evaluation design. In this case, the initial and new design would have both failed to deliver the necessary conditions to produce valid impact estimates. The impact evaluation therefore had to be halted as the program started without a valid evaluation design in place.

Figure 4. Decision Tree for Choosing Impact Evaluation Techniques



Recommendations

Maintain continuous clear communication and coordination between the implementing partner and evaluation partner.

As the implementation of the program and its evaluation are closely linked, it is critical to maintain a constant communication channel between the implementation partner and the evaluation partner. Moreover, it is important to ensure a clear understanding of the evaluation design to secure buy-in and mitigate confusion. Success of an impact evaluation study also relies heavily on the perceptions of the implementing partner. It is critical that implementing partners are champions of the evaluation work and realize its value and use. Specifically in the Uganda case, it was most likely unclear to all stakeholders what the implications of going from a pilot to a national rollout would be from the impact evaluation perspective.

Allow realistic time horizons for evaluation design to adapt to project implementation changes

Understanding and setting realistic timeframes is crucial to the success of both implementation and evaluation processes. The planning process for

Photo credit: Vianney Mbonigaba, IPA

Notes:

[1] Peterman, N.E. and J. Kennedy, 2003. "Enterprise education: Influencing students perceptions of entrepreneurship," Entrepreneurship Theory and Practice, 28 (2), 129-144.

Souitaris, V., S. Zerbinati, and A. Al-Laham, 2007. "Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources," Journal of Business Venturing, 22 (4), 566-591.

[2] Oosterbeek, Hessel & van Praag, Mirjam & IJsselstein, Auke, 2008. "The Impact of Entrepreneurship Education on Entrepreneurship Competencies and Intentions: An Evaluation of the Junior Achievement Student Mini-Company Program," IZA Discussion Papers 3641, Institute for the Study of Labor (IZA).

von Graevenitz, G., D. Harhoff, and R. Weber, 2010. "The effects of entrepreneurship education," Journal of Economic Behaviour & Organization, 76 (1), 90-112.

[3] Youth Entrepreneurship Facility (YEF) is an initiative of the Africa Commission, implemented by the Youth Employment Network (YEN) and the International Labour Organization (ILO).

[4] ILO's Know About Business is a training programme for trainers and teachers in all types of education.

[5] Innovations for Poverty Action (IPA) is a nonprofit organization dedicated to discovering what works to help the world's poor.

[6] *Source for diagrams:* Hempel, Kevin and Nathan Fiala. 2011. Measuring Success of Youth Livelihood Interventions: A Practical Guide to Monitoring and Evaluation. Washington, DC: Global Partnership for Youth Employment.

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Additional Resources:

- ☞ Groupsite for YEN's Fund for Evaluation in Youth Employment
  http://yenclinic.groupsite.com
- ☞ Youth Employment Network Marketplace
  www.yenmarketplace.org
- ☞ Youth Employment Inventory
  www.youth-employment-inventory.org
- ☞ Fund for Evaluation in Youth Employment
  http://www.ilo.org/public/english/employment/yen/whatwedo/projects/evaluation_fund.htm

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both project and implementation are highly interlinked and changes in the implementation plan must be taken into account in the evaluation plans. The current case enlightens that the decision to replace the pilot with a national roll-out gave little room for assessing the feasibility of the randomized promotion design. In this specific case it also implied the finalization of the curriculum and materials in a very short period of time, giving little time for: (i) planning and delivering training workshops for educators (insuring teachers and administrators will attend) (ii) socializing the new curriculum among all stakeholders (iii) tailoring the promotion activities to the specific features of the Ugandan school system and the students' class selection process.

Understand the role of take up levels to derive valid impact evidence

Take up levels are critical not only for the success of the program but also to derive valid impact evaluation evidence. When take up levels (and consequently samples) are not large enough, one can end up in a situation in which the group of people that were exposed to the program are better (or worst) off than the ones that didn't, but the results may lack statistical significance, which means that there isn't enough evidence that the difference is due to the program or is there just by chance. In other words, doing a quantitative analysis with samples that are not big enough is going to lead to results that are not really credible. Particularly, in the case of a promotion design, the average program impact is calculated based on people who joined the program as a result of promotional efforts. Because these participants are only a subset of the eligible population, usually very large samples are needed for this type of evaluation to work.

Conduct pilots for a better evaluation and implementation of large complex programs

Pilot testing is the ideal platform to conduct an impact evaluation. First, RCT evaluation designs work best in the context of a pilot due to the availability of a natural control group of individuals/communities that can act as comparison group when the treatment is randomly assigned. Second, deriving meaningful impact evidence at this stage can help to understand possible implementation challenges and the level of impact before scaling up. Implementing a new program on a large scale without conducting an impact evaluation and learning from it, may be a lost opportunity.

Next Steps

In the case of Uganda, despite the failed impact evaluation attempt, as a next step to ensure the quality of the program, a monitoring system was established. The system entailed monitoring teacher attendance and adherence to the new curriculum, as well as analyzing overall reception for the curriculum. Moreover, the team of researchers designed an intervention to test the relative impact of different type of skills usually part of an entrepreneurship curriculum at the secondary school level. The evaluation is ongoing and results will be available in October 2014.

For questions and more information about this impact evaluation, please contact Silvia Paruzzolo at *paruzzolo@ilo.org*.

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