

# MENNONITE ECONOMIC DEVELOPMENT ASSOCIATES (MEDA) MAROC

## Key Messages:

- The case of MEDA Maroc provides good evidence that close involvement of the implementing organization in the impact evaluation facilitates the implementation of the research.
- Mobile data collection equipment used efficiently can substantially decrease the required time and resources and increase data quality.
- Ensuring high take-up of the program is key to a successful study.
- Impact evaluation studies can be small and localized although tests to determine the extent of external validity should be run before the study begins.

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## BACKGROUND

### MEDA Maroc and the “100 Hours to Success” training program”

Since 1953, the Mennonite Economic Development Associates (MEDA) has been designing and implementing market-driven economic development programs that improve the welfare of disadvantaged people around the world. MEDA’s outpost in Morocco, MEDA Maroc, has been present in the country since 2009.

The office manages the YouthInvest project, a five year initiative sponsored by the MasterCard Foundation. The objective of the project is to provide economic opportunities for Moroccan youth through skills and employability training, on-the-job experience, access to finance, and providing support to NGOs and financial service providers in the development of financial and non-financial products. The project is comprised of four different training programs, the largest one being “100 Hours to Success”. Since its inception, YouthInvest has reached over 42,600 youth.

“100 Hours to Success” is a programme aimed at youth between 15 and 25 years. It provides them with 100 hours of training in life skills, entrepreneurship and financial education. The participants of the training are required to open a bank account at Al Barid Bank [1]. After the training, between 5 and 10 percent of youth receive internship placements. The length of the training program is three months. Since 2009, approximately 20,000 youth in Morocco have benefited from the training.

### Monitoring and evaluation system

The monitoring and evaluation (M&E) system at MEDA Maroc depends on a program wide Performance Measurement Framework (PMF) [2], a clearly defined set of indicators used to track performance, determine data sources and data collection methods and set targets for achievement. Maintaining the PMF is the responsibility of MEDA Maroc’s Monitoring and Evaluation Officer who works closely with Extension Officers [3], the main points of contact with project beneficiaries. The PMF includes routine monitoring of program beneficiaries using qualitative and quantitative techniques as well as periodic evaluations. For instance, a non-experimental evaluation conducted in 2010 surveyed 157 youth to determine the effect of the training on savings behaviour and integration into workforce. Interviews were conducted before and after the training sessions, and impact was estimated by comparing the two observations [4].



# IMPACT EVALUATION

To further enhance its M&E system, MEDA Maroc wanted to prove the cause and effect relationship between its interventions and the outcomes observed by conducting an experimental evaluation, in which they had no experience.

As part of the Taqem initiative, MEDA Maroc participated in a series of technical training sessions and consultations with evaluation experts over the course of which the impact evaluation design for “100 Hours to Success” was developed. The design included elements such as a revised results chain, evaluation questions, a comparison group identification strategy, a sampling and data analysis plan, as well as a budget. Based on the plan, a detailed concept note was drafted, validated, and later submitted to the International Initiative on Impact Evaluation (3ie) that agreed to fund the study [5]. For the course of the impact evaluation, MEDA Maroc retained an important coordination and management role. An expert investigation team was assembled; it was responsible for the scientific validity of the study’s design as well as the analysis of the data.



## Impact evaluation design

The study, being conducted in the Oriental region in the cities of Oujda, Jerrada, and Taourirt, is the first experimental evaluation [6] focused on youth training to be conducted in Morocco. The evaluation seeks to answer the following questions about MEDA Maroc’s “100 Hours to Success” training program:

- What is the impact of the intervention on labour market outcomes such as the employment and self-employment rate, earnings and duration of job search?
- What is the average impact on non-labour market outcomes such as leadership, confidence and empowerment?
- How do impacts differ by socio-economic criteria such as gender, age and urban/rural?

Additionally, the study seeks to contribute to important emerging policy issues such as how young people save and invest their money, and the role of short post-secondary training in curbing the transition from school to work. With unemployment rates amongst youth approaching 20% [7], identifying successful employment strategies is one of the top policy issues for the Moroccan government.

The research team chose a randomized control trial (RCT) design for the evaluation. In RCT designs, surveyed individuals are randomly divided into a participant and a comparison group. Differences in outcomes between both groups are calculated with the only assumed difference between the two groups being the intervention itself. The study involves a baseline survey (conducted in October and November 2012) and a follow up survey conducted 12 to 14 months after the end of the training.

# IMPACT EVALUATION~ continued

## Baseline data collection

An external data collection firm, made up of 16 enumerators and three field supervisors, was hired to conduct the data collection. The questionnaire contained between 100 and 122 questions and a full questionnaire took about 25-30 minutes to administer. The enumerators were trained in survey techniques and the survey instrument was tested with a small group of youth and subsequently adapted to ensure an exhaustive understanding by prospective survey respondents.

The surveys were conducted in 13 youth centers where MEDA Maroc's trainings are carried out. Youth were invited to the center which was closest to their place of residence. Enumerators carried out the surveys using tablets equipped with Open Data Kit (ODK) survey software [8]. Questionnaires were uploaded onto the tablets and responses were then collected electronically. Completed surveys were uploaded onto a central server and responses were aggregated into a format ready for analysis [9]. This mobile data collection technique saved the team valuable time and resources and greatly reduced the number of errors usually caused by manual data entry. The survey was complemented by four focus groups.

## Randomization and take up

Over the three week span of the baseline survey, 1,817 youth were surveyed. A random selection initially placed 600 in the participant group (equalling the number of available spaces in the training program during the time under study) and 1217 in the comparison group. The bigger size of the comparison group was decided in order to both increase the power of the calculations (given the fairly small population) and help remediate some of the enrolment take-up issues that MEDA foresaw at the time (furnishing back-up candidates for the participant group). Summary statistics show that randomization was successful in achieving balance across participant and comparison groups.

Nevertheless, despite considerable efforts, the take up rate of the training proved troublesome: of the 600 youth who were invited to the training, only 340 were in attendance by December 2012. To achieve their objective of 600, MEDA decided to organize a second wave of training. Therefore, a second random selection of 300 youth was taken from the comparison group and brought into the participant group, bringing both into alignment at about 900 individuals each. The second wave of training was completed in August 2013, with a combined total of 505 youth having participated in the training overall.

## FINDINGS

A baseline survey taken alone is insufficient to demonstrate any changes on outcomes, not to mention impact, since the treatment has not happened yet. That said, the baseline report provides an extensive descriptive analysis of the population under study. Key findings from the baseline survey are listed below:

### Gender balance:

The surveyed population of 1817 youth is 53% female. As shown in Table 1, male program applicants are younger than their female counterparts. The observed age differential by gender is probably related to higher educational attainment rates by young women in Oujda (and Morocco), while young men are more likely to leave school and seek out employment (and training support for their employment search) at an earlier age. The fact that young women are well represented among participants is a positive finding, since traditionally they are much less likely to engage in activities offered through often male-dominated youth centers.

**Table 1 - Age categories by gender**

	Male	Female
<b>Total</b>	<b>100</b>	<b>100</b>
<b>age 15-18</b>	37.6	26.7
<b>age 19-21</b>	35.7	44.1
<b>age 22-24</b>	21.2	23.5
<b>age 25-30</b>	5.9	5.7

### Educational attainment:

The relative young age of the sample is reflected in the latest level of education attained, as shown in Table 2, with 91% of the sample having not yet obtained a higher degree than the Lycee [10]. With the majority of participants enrolled in some form of professional education (30%) or university (40%), it is also clear that the program primarily attracts a better educated cohort compared to the average Moroccan youth population. The analysis also features the data broken down into the participant and the comparison groups [11], showing no statistically significant differences between both groups.

**Table 2 - Attained level of formal education, broken down by groups**

	Primary	College	Lycee	Professional degree	University and above	Total
<b>Total</b>	<b>18.6</b>	<b>29.5</b>	<b>43.1</b>	<b>4.9</b>	<b>3.7</b>	<b>100</b>
<b>Comparison</b>	20.1	28.4	42.2	4.7	4.7	100
<b>Participants</b>	17.2	30.5	44.1	5.2	3.1	100

## FINDINGS~ continued

### Socio-economic status:

The analysis of the household income, also broken down into both groups, shows that the participant group is slightly biased towards poorer populations, as shown in Table 3. The share of those in the highest two income brackets constitutes 7% of the participant group compared with 10% in the comparison group. While the difference between these two groups is not statistically significant (as per the baseline report), future assessments will have to be mindful about this potential bias. Overall, 83% of the individuals from the sample (26% + 40% + 17%) declare coming from households that have an income smaller than 5000 Moroccan Dirhams per month, confirming that the program also reached lower-income households.

**Table 3 - Household income status (in Moroccan Dirhams) [12], broken down by groups**

	0-1500	1500-3500	3500-5000	5000-7000	7000-10000	10000 +	Total
<b>Total</b>	25.8	40.0	16.9	8.8	4.3	4.2	100
<b>Comparison</b>	25.7	38.6	16.6	9.1	4.9	5.1	100
<b>Participants</b>	25.8	41.4	17.2	8.5	3.7	3.3	100

### Employment status:

Finally, Table 4 looks at the current employment status and illustrates that the vast majority of the sampled individuals are still enrolled in some level of education [13]. The education status of the majority should be kept in mind when evaluating employment outcomes: while it was expected on evaluation design that individuals would be enrolling in MEDA Maroc's 100 Hours to Success as a bridge in the transition from school to work, the actual transition might take longer for many than expected in that a year from now many might still be in school and only passively searching for employment.

At baseline, 85% of respondents were not active in the labour market (most of them being full-time students). Out of the active individuals (15% of the total), 32.3% were employed and 19% were self-employed. The unemployment rate among this – albeit small – population of active individuals was nearly 49%. Although the participant group is slightly more inclined to be active in the labor market, both groups are largely in alignment, with no statistically significant differences.

**Table 4 - Current employment status, broken down by groups**

	Employed	Self-employed	Unemployed	Inactive	Total
<b>Total</b>	4.9	2.9	7.5	84.7	100.0
<b>Comparison</b>	4.3	2.5	7.3	85.8	100.0
<b>Participants</b>	5.5	3.3	7.7	83.6	100.0

# RECOMMENDATIONS

## Involvement of the implementing organization

The “100 Hours to Success” study is a rare case of an implementing organization being actively involved in the impact evaluation processes, although not ultimately responsible for the study, which falls under the responsibility of the investigation team led by academics and professional impact evaluation experts. In many cases, the implementing organization is left aside from the study. The comparative advantages of having the implementing organization participating actively in the work are many, and include:

Matching project design to data collection cycle: The timing of data collection needs to coincide with the intervention which is dependent on the work plan of the implementing agency.

Increase take up: A high dropout rate can undermine the validity of any study. By carrying an extensive outreach campaign (phone calls and home visits) and making training schedules extremely flexible, MEDA was able to increase the take up, even though some struggles remained. Nevertheless, gaining a deep understanding of the reasons which prevent participation is crucial, and the close collaboration between the research team and the implementing agency was essential in this regard.

Trust with beneficiaries: An implementing organization has built up trust in the communities where they are working and can assist with data collection, especially when trying to collect sensitive information.

## Capacity building on impact evaluation

Despite the advantages outlined above, many organizations lack expertise and experience in impact evaluation. As in the case of MEDA Maroc, the capacity of implementing organizations to engage in impact evaluations needs to be built. In order to better understand the mechanics of the evaluation, the counterpart at the implementing organization should receive basic training on impact evaluation [14] ideally complemented by continued coaching to help identify impact evaluation experts and assist throughout the preparation process. Even though an impact evaluation might be mostly conducted by a team of experts and an independent data collection firm, a successful study would not be possible without an enabling environment and the understanding and inputs of knowledgeable focal points in the implementing organization.

## Technology

The MEDA Maroc example has shown how the use of mobile technology can significantly increase data quality and reduce costs. The high price of buying mobile devices was well worth the investment. That said, practitioners should reserve enough time to pilot the survey and train the enumerators. The ordering, programming, editing and connecting of the devices is an arduous and time-consuming task.

## Dealing with take-up and attrition

High dropout rates are quite common in training interventions. This can introduce bias in the results as those youth that choose to complete the training can be quite different from those that drop out. MEDA faced this challenge during a first wave of training when 38% of selected youth did not show up. Trying to remediate the problem, they decided to organize a second wave of training and randomly moved 300 youth from the comparison group to the participant group. While this random selection should help reduce bias in results, certain heterogeneities in the results will not be observed because of decreased statistical power. At the same time, MEDA has been tracking down dropouts to ensure they can be available for the follow up survey where “intention to treat” analysis can be applied [15].

## NEXT STEPS

### Tracking youth until the follow up survey

Given the highly mobile nature of youth in Morocco, there are risks of youth moving away from the program area and changing telephone numbers and email addresses. As such, MEDA Maroc will conduct an SMS survey in order to maintain accurate contact details for both the participant and the comparison group. The exercise will consist of verifying their contact information (address, email, phone) and receiving an update regarding youth employment status mid-way through the study.

### External validity

As the study is concentrated on the oriental region of Morocco, there is a concern regarding the external validity of the results. In order to observe whether the findings can be applied to the rest of the country, MEDA will compare their demographic and socio-economic baseline results with the 2009 Moroccan Household and Youth Survey [16] conducted by the World Bank.

### Follow up survey

Originally planned for December 2013, it has been postponed to mid-2014 because of the addition of a second wave of trainings. Since a follow-up survey in stages was considered too costly, the study team decided to conduct the follow-up at the same time for both training cohorts. While this implies that there will be less time for training impact to materialize for those youth that started the training later, it is expected that these differences will not strongly affect the results. Data analysis will be carried out separately for both cohorts allowing for disaggregated findings.

#### END NOTES:

- [1] MEDA Maroc negotiated the minimum deposit amount down from 100 Moroccan Dirhams (MAD) to 5 MAD.
- [2] Also known as M&E matrix.
- [3] Extension officers deliver the training to 100 Hours program participants.
- [4] The results tend to show that the training had positive effects on the income and the behaviour of the graduates. Nevertheless, this study not relying on a counterfactual, we cannot be certain that these changes were caused by the training.
- [5] 3ie funds impact evaluations and systematic reviews that generate high quality evidence on what works in development and why. It rarely directly funds implementing organizations.
- [6] Various experimental evaluations on youth training, but conducted in other countries, can be found on the Youth Employment Inventory (<http://www.youth-employment-inventory.org/>), such as *Program for the promotion of children and youth* (Uganda, 2006), and *Tap & Reposition youth– Savings & Micro-credit for adolescent girls* (Kenya, 2005).
- [7] Haut-Commissariat au Plan du Maroc, « Activité, emploi et chômage, premiers résultats (annuel), 2012 », p.20.
- [8] ODK is an open-sourced software that helps organizations author, collect and manage mobile data collection.
- [9] The complete datasets are finalized on Excel.
- [10] Lycee corresponds to the last degree before entering university.
- [11] Randomizations presented here refer to the second wave of randomization, the one where both groups align to approximately 900 individuals each.
- [12] As per July 2013, 1000 MAD roughly converts into 116 US dollars.
- [13] Despite the fact that most youth are still in school, 58% of sampled individuals claim having already somehow worked in the past.
- [14] For instance YEN's Evaluation Clinics (<http://www.ilo.org/public/english/employment/yen/whatwedo/projects/clinics.htm>) and J-PAL's Evaluation courses (<http://www.povertyactionlab.org/course>).
- [15] "Intention to treat" analysis estimates the impact on those intended to be treated rather than those who actually participated.
- [16] See <http://microdata.worldbank.org/index.php/catalog/1546>.