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Integrating Randomized Controlled Field Trials into (existing) Panel Surveys – The “Mentoring of Refugees” Study

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Abstract

Randomized controlled trials (RCT) are the gold standard in research design for studying causal relationships. In migration studies, they can, for instance, help studying the effects of government and non-government programs on migrant integration. However, RCTs are challenging and cost-intensive to conduct. In this brief, we outline a research design that integrates RCTs into existing panel surveys in order to reduce costs and address certain shortcomings often associated with RCT designs. We introduce the implementation and design of the study and discuss potentials and challenges: How was the RCT integrated into the panel survey? What are the potentials of this research design? What are challenges and pitfalls researchers should be aware of when using this design? To answer these questions, we draw on the study “Mentoring of Refugees” (MORE) as an example, which evaluates a mentoring program between refugees and volunteering locals in Germany, combining the IAB-BAMF-SOEP Survey of Refugees 2017 and 2018 with a randomized controlled trial (RCT).

Introduction

Randomized controlled trials are much praised for the possibility to make causal inference. By randomly assigning respondents to two groups, only one of which receives the “treatment,” this design allows to identify the causal effect of the treatment without the common problems of endogeneity through, for instance, omitted variables, reverse causality, and self-selection (Angrist and Pischke 2008, 12). Randomized controlled field trials (RCFT), which apply this approach outside laboratory settings, have the further advantage to increase external validity because they collect data in real-life contexts (Duflo, Glennerster, and Kremer 2007). In migration studies, RCFT can, for instance, help to study the causal effects of government and non-government intervention programs on migrant integration outcomes. However, RCFT also comes with challenges: base line data on study participants is often relatively thin, and long-term follow-up of participants is costly. In the remainder we will outline a research design that integrates RCFT into an existing panel survey in order to mitigate these challenges. We draw on the study “Mentoring of Refugees” (MORE) as an example, which studies the effects of participation in a mentoring program on refugee integration.

Integrating randomized controlled trials in panel surveys

RCFT are sparsely used in social sciences in general, and in migration and integration research they are particularly rare. Exceptions include Joonas and Nekby (2012) evaluating a Swedish state-run counseling program with newly arrived immigrants and its effects on employment probabilities, Lange et al. (2017) describing the implementation of a sports intervention coupled with different treatments for refugees in Germany and studying the impact of the program on successive employability, as well as Batistti et al. (2018) testing job search assistance for refugees by a Munich-based NGO as a tool for labor market integration. Leveraging the power of RCFT, these studies make key contributions by identifying causal effects of the intervention programs under study. But they also illustrate two of the design’s major challenges. First, RCFT usually lack detailed baseline information on participants, such as their migration histories, family circumstances, and mental health. Yet, such variables can help modeling selection into the RCFT, studying heterogeneous treatment effects, and serve as controls to increase the efficiency of regression estimates which, in turn, decreases the required sample size. Second, respondents’ drop outs make long term program evaluation difficult and costly.

Already established panel surveys have complementary strengths. They are better suited to track respondents over time as individuals are used to the annual survey, and contain very detailed information on respondents’ biographies and personal characteristics. Further, they often offer linkages to administrative data which increases the information on treatment and control group,ⁱ and offers a path to retrieve information even if attrition occurs in the panel survey (Duflo et al., 2006).ⁱⁱ Still, although panel data may better account for unobserved heterogeneous factors than simple cross-



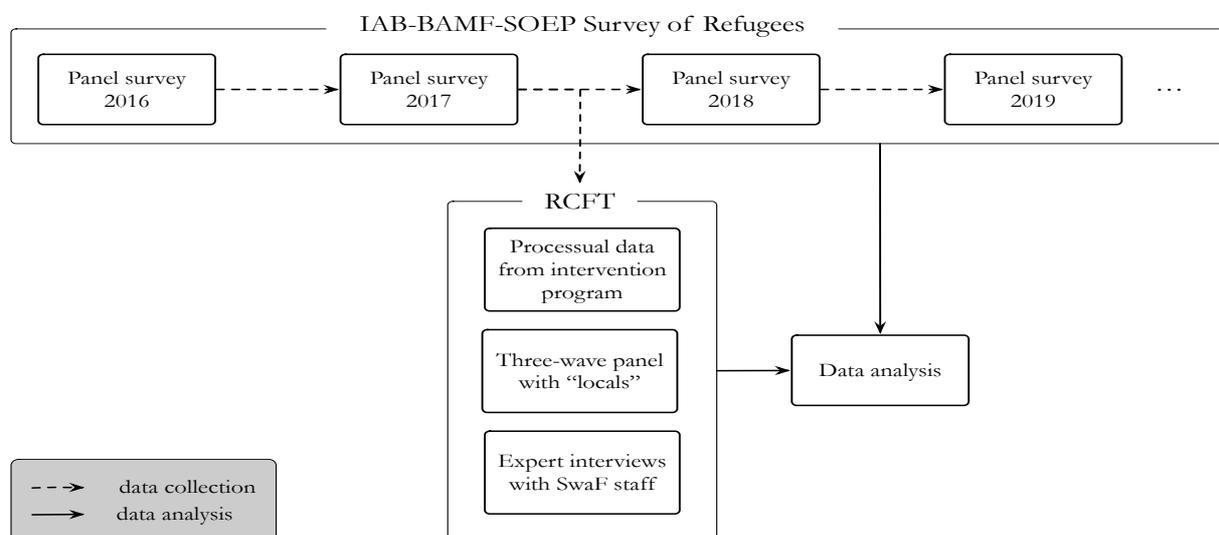
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sectional estimation techniques, the non-experimental data often does not allow for causal inference (Angrist and Pischke 2008, 12). We thus suggest integrating RCFT into existing panel surveys to get the best of both worlds. Specifically, researchers can use the detailed information provided by existing panels to identify the target population, run a RCFT with consenting panel respondents, and use later waves of the panel survey to assess treatment effects. As will be worked out in the following, this design offers great synergy between the two approaches and increases analytic potential with comparatively low implementation costs.

The Mentoring of Refugees study

The Mentoring of Refugees (MORE) projectⁱⁱⁱ, funded by the Leibniz Association, studies whether social intervention in the form of mentoring can foster integration. The experiment was implemented in the 2017 wave of the IAB-BAMF-SOEP Survey of Refugees (Kroh et al. 2017; see below for a brief description). For information, initiation, and support of the mentoring program, we partnered with Start with a Friend e.V. (SwaF),^{iv} a German social start-up whose mission is to match refugees to German residents (called “locals” hereafter) to form mentoring-style relationships with a particular aim to support formation of friendships. Over a period of six months, refugees and locals are expected to meet on a weekly basis for about two to three hours, leaving it up to them to decide on activities to do together. MORE used five data sources: panel data from the IAB-BAMF-SOEP Survey of Refugees, linked administrative data on (un-)employment and participation in labor market programs (79.78% of participants gave their consent for record-linkage), processual data from the intervention, an additional three-wave web panel of locals who partnered with refugees from the treatment group, and a set of expert interviews to get a deeper understanding about the administration, design, and mechanisms of the intervention program on site. Figure 1 illustrates the research design.

Figure 1: MORE research design



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Implementation

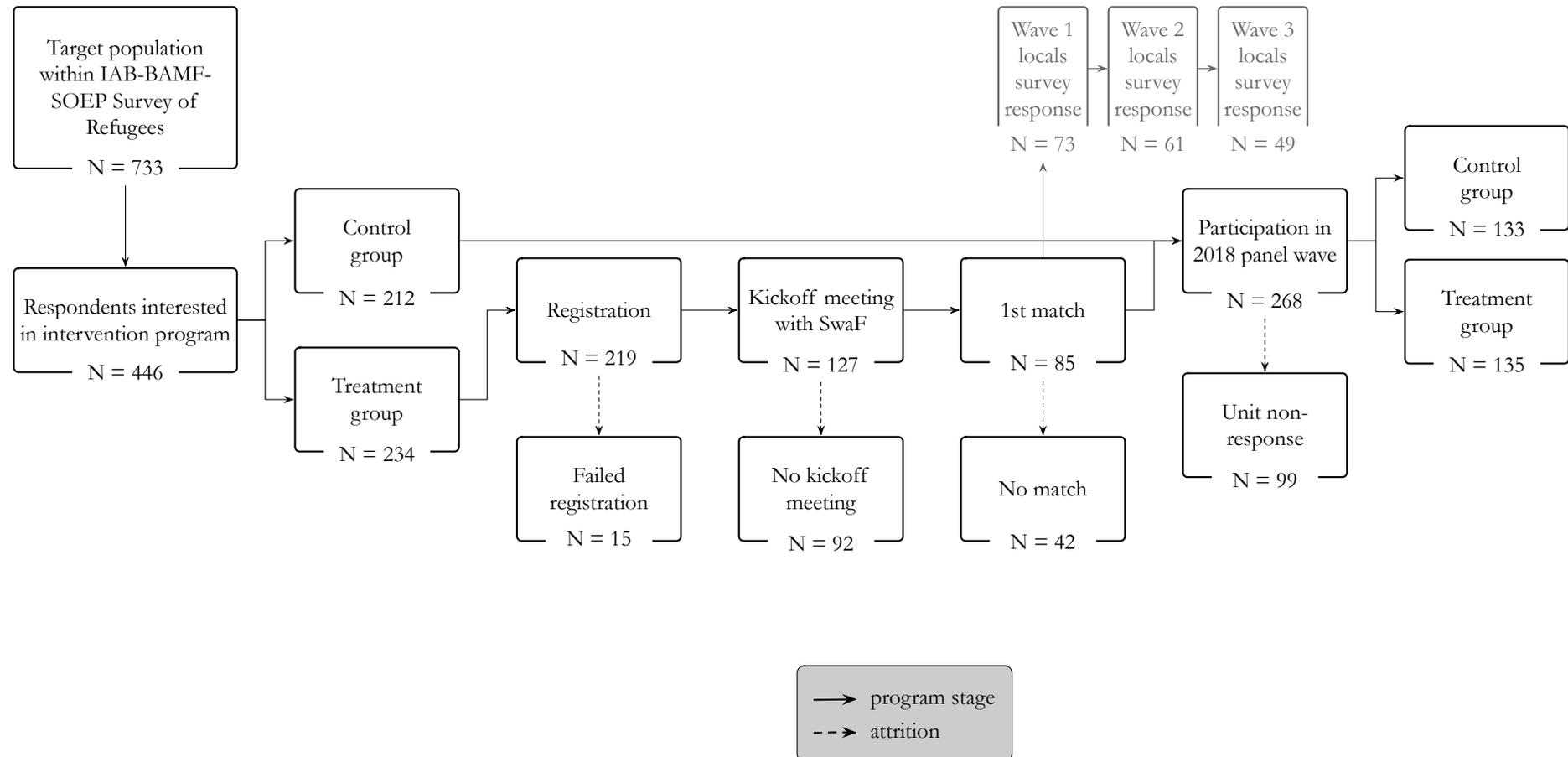
The research design follows a multi-stage process. In the 2017 wave of the IAB-BAMF-SOEP Survey of Refugees (wave 34 of the SOEP, wave 2 of the Refugee Sample), interviewers of the survey institute Kantar Public Germany introduced the mentoring program to refugees during face-to-face interviews. The target population was limited to respondents who resided in one of the fourteen German cities^v in which SwaF was active at the time. Respondents who indicated their interest in participating (N=446) were then randomly selected into either the participant group (treatment group; N=234) or the non-participant group (control group; N=212). Respondents of the participant group signed into the SwaF program via an online portal so that SwaF staff could contact participants in order to begin the matching process (see below for more information). Locals, on the other hand, were not actively recruited but self-selected into the program by registering through the SwaF website and attending information meetings. When meeting SwaF staff for the first time, locals were asked whether they would be interested in being matched to participate in the research project. Refugees in the treatment group were only matched to locals who agreed to participate in the study and participate in the web survey for locals (administered by the Center for Empirical Social Research [*Zentrum für empirische Sozialforschung*]).

Of the N=234 respondents assigned to treatment, N=219 were successfully registered with SwaF.^{vi} After registration, a SwaF staffer or volunteer met participants for a one-on-one kickoff meeting. In total, SwaF staff met with N=127 refugees. The remaining N=92 treatment group participants were not met for various reasons (for instance, because they were no longer interested in participating or because they could no longer be contacted by SwaF) and were thus excluded from further participation.^{vii}

N=85 of those refugees who met with SwaF were matched to a local until the end of the field phase. Based on the idea of SwaF to initiate friendships between refugees and locals, the staff tried to bring together people considered to be a good “fit” based on, for instance, a shared passion, interest, or persons of the same age. Of the N=85 matches, N=12 ended prematurely by either the refugee or local; N=7 of them received a second mentor. This second match endured for N=6 refugees.



Figure 2: MORE implementation



As mentioned, the IAB-BAMF-SOEP Survey of Refugees allows tracking participants and non-participants over time, even after termination of the program. In survey wave 35, the treatment and control groups were interviewed one year after the tandem relationship. 55 of the initial 85 matched refugees were still participating in the panel survey and could answer questions on what they had experienced in the mentoring relationship. All had indeed met their mentoring partner and in N=26 of the cases, the mentoring relationship was still intact. Meanwhile, N=133 survey participants remained in the control group of interested non-participants.

Challenges and lessons learned

Interviewer effects and training

An annual survey such as the IAB-BAMF-SOEP Survey of Refugees relies on engaged interviewers who visit survey participants in their homes. Interviewers are crucial in administering the extensive questionnaires, and they were also instrumental in communicating what the intervention program was about. Ideally, interviewers elicited interest in the intervention program among their interviewees. A first takeaway from our study was the difficulty of introducing such a program via intermediaries to an unsuspecting group such as refugees. The interview setting differs from other contexts such as formal job center appointments, where individuals naturally expect to receive an offer for an additional stimulus. Analysis of the recruitment rates show considerable variability across interviewers. About 35% percent of the overall variance in the recruitment can be attributed to the interviewer level. This is per se not a major threat for causal inference, but highlights the importance of intermediaries who are able to ‘sell’ the program. In briefing sessions prior to the field phase, we were apparently not able to convince all interviewers of the project. Further, we suspect the lack of language match between refugees and interviewers to be a crucial obstacle in the recruitment process. Particular, if possible, interviewers should have less language barriers and/or good rapport with the target population.

Stages of attrition

While integration into panel surveys is a cost-efficient way to implement an intervention study, the design does not necessarily yield less attrition in the follow-up data collection process. In a worst-case scenario, this may cause the research design to break down, e.g., if too many respondents from the treatment group drop out of the study in the following survey years (Duflo, Glennerster, and Kremer 2007). Figure 2 (see above) illustrates implementation stages and shows attrition numbers for each stage in our study.

First, a number of treatment group participants were lost before they entered the intervention, e.g., because of technical problems during registration, exclusion due to repeated failure to attend scheduled meetings,

or lack of basic language skills. Second, during the intervention program, some treatment group participants could not be matched by SwaF by the end of the field phase. Others were matched, but the relation was terminated early, so that the refugees did not receive the full treatment of at least six months in the mentoring relation. In yet other cases, locals did not answer the web panel, despite having agreed to participate in the study. Third, some 2017 respondents could not be interviewed in the 2018 wave or opted out of the panel study, and thus no outcome measurement for these respondents was possible through the IAB-BAMF-SOEP panel survey.

Panel attrition in surveys and RCFT designs may be addressed in different ways. A first thing to keep in mind is that not all attrition is equally problematic. According to the intention-to-treat framework, dropouts due to, e.g., dwindling interest or early relation termination should be included in the assessment of treatment effects (Hollis and Campbell 1999); hence, cases in which the treatment was not completed do not pose a challenge to the research design. Second, some attrition in the form of non-response to survey waves may be mitigated with additional data sources. For instance, in MORE we are able to retrieve some outcome measurements, such as employment status, even for respondents who do not participate in the 2018 or later panel waves if they agreed in 2017 to link their panel data with administrative employment records. Third, it is advisable to design the study in a way that relevant analyses can be conducted with data from different stages of the experiment. In MORE, since all interviewees receive the same survey questionnaire before allocation into treatment and control, we are able to examine the important issue of selection into the treatment on a sample unaffected by potential attrition in later stages of the study. Finally, and crucially, ‘cumulative attrition’ should be accounted for when planning the initial sample size. Although holding true in many situations, especially in the context of the research project discussed, it was beneficial to maximize the size of the initial study population within the financial possibilities.

Outlook

Integrating randomized controlled field experiments (RCFT) into existing panel studies offers researchers the best of both worlds: rigorous analysis of causal effects, paired with detailed background information and cost-effective long-term tracking of outcomes. We presented an example of this research design in the MORE study, which integrates a RCFT into the IAB-BAMF-SOEP Survey of Refugees to study the effects of a mentoring program on refugee integration. The RCFT/panel research design implemented in MORE enabled us to study issues such as bridging tie formation through intervention programs and selection into intervention programs, and, most importantly, allowed to identify substantial and significant treatment effects of program participation on social, political, and socio-economic integration. Hence, the MORE study is an example of RCFT as the best available tool in social research for drawing causal inferences in real-life settings.



Such causal inferences comprise crucial contributions to academic research and policy development. A range of governmental and non-governmental programs aim to support immigrant and second-generation integration. Producing reliable estimates of the causal effects of such programs on educational, economic, social, and political integration is key for all stake-holders.

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ⁱ While the SOEP offers a record linkage to the Integrated Employment Biographies (IEB) in Germany, other data sources such as the British Household Panel (BHPS) provide linkages to administrative health data or pension insurance information in the case of the Survey of Health, Ageing and Retirement in Europe (SHARE).

ⁱⁱ Unless participants wish their data to be deleted.

ⁱⁱⁱ The intervention study is being carried out by the Socio-Economic Panel (SOEP) at the German Institute for Economic Research (DIW Berlin) in partnership with the Institute for Employment Research (IAB) and the Federal Office for Migration and Refugees (BAMF).

^{iv} For further information, visit www.start-with-a-friend.de/

^v Berlin, Potsdam, Dresden, Leipzig, Hamburg, Oldenburg, Cologne, Bonn, Dusseldorf, Frankfurt, Freiburg, Landau, and Mannheim.

^{vi} The mismatch between respondents assigned to treatment and registered is due to technical difficulties.

^{vii} Refugees who were excluded because they could no longer be contacted (N=26), were once re-contacted by the interviewers of Kantar Public Germany before being excluded definitely.

