

COVID-19 lockdown during field work—Challenges and strategies in continuing the ReGES study

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This paper describes the consequences that the non-pharmacological interventions (NPI) in the context of the COVID-19 pandemic had on the data collection of the panel study ReGES and the solution adopted to continue the field work. The NPI were introduced during the 7th wave of the ReGES study and led to a disruption of the field work. In order to continue the field and to keep the data collected after the NPI comparable to the one collected before the NPI, we decided to switch the face-to-face mode to a telephone interview. The switch made content-related as well as technical and methodological adjustments to the instruments necessary. We also discuss methodological issues that must be taken into account when preparing and analysing the data.

Keywords: COVID-19; mode switch; refugees; framing

1 Introduction

The non-pharmacological interventions (NPI) in the context of the COVID-19 pandemic mean that many research projects are facing major challenges. This is especially true for studies that are based on face-to-face interviews and if NPI are introduced in the middle of a survey's field period. This is exactly what happened in the seventh wave of the "ReGES—Refugees in the German Educational System" panel study¹. This article briefly describes the design of the ReGES study and the wave during which the NPI were introduced. The pros and cons of different strategies for continuing the survey are outlined. The strategy chosen, switch to a telephone interview, is presented in more detail, and content-related and technical challenges are discussed. The final discussion addresses methodological aspects of the survey which must be taken into account when preparing and analysing the data.

2 Description of the ReGES Study

The aim of the ReGES study is to describe the situation of newly arrived young refugees in the German educational

system and to present their educational pathways in more detail. The longitudinal study focuses on two starting cohorts: pre-school children who are at least 4 years old and had not yet entered elementary school at the time of the first measurement (refugee cohort 1, RC1) and adolescents aged between 14 and 16 who were still in lower secondary school at the time of the first survey (refugee cohort 2, RC2). ReGES is carried out in five federal states and applied a multistage sampling design (for details see Steinhauer, Zinn, & Will, 2019). The willingness to take part in the initial survey was very high (cooperation rate: 80% and response rate 50%). In both cohorts, over 2,400 participants were interviewed in the first wave and then followed up about every six months from spring 2018 to spring 2020. Up to now, data from six panel waves were collected. In addition to two personal surveys with a subsequent survey of educators and teachers, web and telephone surveys have also been used. The willingness to participate in the individual panel waves depends very much on the mode of the survey. While the response rate was very high in the face-to-face panel wave (82%), the participation in the online waves is much lower (up to 27%). In the telephone interview, the response rate was about

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55%. Whereas in RC2 the adolescents themselves were interviewed, it was the parents who were interviewed in RC1. In the first wave, a competence test with children and adolescents was conducted to measure German language competencies and basic cognitive skills. All survey instruments are available in Arabic, English, German and Kurmanji (for more details on the study design see Will, Gentile, Heinritz, & von Maurice, 2018). The seventh wave was scheduled to take place between February and May 2020. The face-to-face interviews were conducted as a Computer-Assisted Personal Interview (CAPI) and a subsequent Computer-Assisted Self-Interviewing (CASI) on a tablet. Whilst the CAPI primarily contains questions regarding objective facts (e.g. educational biography, current educational situation, residence status), the CASI includes subjective assessments, attitudes and psychological measurements. The CASI further comprises questions that are classified as sensitive, such as questions about the risk of post-traumatic stress disorder (PTSD) and prosocial behaviour. In addition to the interview, a competence measurement comparable to the one in the first wave should take place among the children and adolescents.

After the interviews with parents and adolescents, a postal survey was planned among headmasters and educational staff responsible for the children and adolescents surveyed. The pedagogical staff not only provide information about themselves and the classes or kindergarten groups, but also about the target persons. To fulfil the requirements of data privacy, the written consent of the adolescents and the parents is necessary in order to collect information on the target persons by the educational staff. This consent had already been obtained for most target persons from previous waves. Those who had not yet given their consent, and adolescents who had turned 18 since the last interview, were asked to give or renew their consent, respectively. The field phase of the seventh wave was stopped on March 16, 2020 in the course of the COVID-19 pandemic in order to protect the respondents and the interviewers. It was not possible to resume the field work thereafter due to the official ban on contacts. Up until then, approx. 40% of the sample had been interviewed (RC1: 40.5%; RC2: 39.8%). The competence tests had been fully completed in approx. 93% of the cases realized (RC1: 92.8%; RC2: 93.1%). The survey of the educational staff had not yet started.

3 Strategies to continue the survey wave

The strategy of resuming the face-to-face field in order to complete the survey within the school year 2019/2020 had to be rejected due to the continuing COVID-19 pandemic. As the interviews were conducted in respondents' homes, some of whom were still living in collective accommodation, the risk of a possible infection with the virus was too high for both the interviewers and the families interviewed and, additionally, legal restrictions were still in force. Therefore, two

alternatives were discussed.

Postponing the interview

The first alternative was to postpone the survey and competence tests of the remaining target persons to a much later point in time and thus also to the next school year. In this scenario, we would not have to adapt the interview. The main disadvantage of this alternative, however, is that about 40% of the sample would have referred to their educational situation in the school year 2019/20, whilst about 60% would have referred to the school year 2020/21. This also holds true for the survey of the educational staff. Since, in the current situation, it is completely uncertain when we will be able to resume the face-to-face survey, and we were additionally confronted with constraints regarding our funding, this alternative was discarded.

Switch to Computer-Assisted Telephone Interview (CATI)

The second alternative was a switch from the face-to-face field to a CATI. In contrast to a classic CATI, the interviewers use the originally intended devices (laptop and tablet) for the face-to-face interview and conduct the telephone interview from their homes rather than from a telephone studio.

Experiences from previous ReGES waves show that the response rate for our target population was significantly higher for a face-to-face mode than when using telephone interviews. However, various measures were applied to maximize the response rate and minimize selectivity: 1. The same interviewers who had already been employed for the face-to-face interviews also conducted the CATI. The families had already built a relationship of trust with these interviewers, which increased the likelihood that they would also participate in the CATI. 2. The fact that the mode had been switched for health reasons only was emphasized. 3. The originally planned incentive, which is normally higher for a CAPI than for a CATI, was retained. Although we nevertheless expect a lower response rate in the telephone field compared to the face-to-face field, we assume it will be possible to realize a sufficient, not selective number of cases for the data analysis. Nevertheless, careful selectivity analyses will have to be carried out when evaluating the data.

Unfortunately, the alternative data collection strategy described has three disadvantages: First, the remaining approx. 60% of the sample cannot participate in competence testing. Postponing the competence tests to autumn 2020 was discarded due to the high degree of planning uncertainty and the additional costs. Even though we assume that the data already available on competencies which were collected for the first part of the sample are sufficient to conduct basic analyses of German language skills of refugee children and adolescents, the statistical power of the data is reduced due to the lower number of cases. The second disadvantage concerns

the fact that for some target persons consent was lacking for the survey of educators and teachers. This consent could not be obtained as the parents and adolescents have to give their written consent, which would then be sent to the educational institutions. Third, the switch from a CAPI and CASI mode to a CATI is technically complex and entails the risk of mode effects (see e.g. Kreuter, Presser, & Tourangeau, 2008; Newman et al., 2002).

However, the advantage of this strategy is the possibility to obtain data on the educational situation of all children and adolescents in the sample in the same school year. Additionally, the survey of educators and teachers can be carried out almost as originally planned in terms of scheduling. Furthermore, the decision to continue the field work as soon as possible allows us to ask questions about the current educational situation during the COVID-19 pandemic. These advantages led us to switch from CAPI/CASI to CATI mode.

4 Challenges of the mode switch

To keep the interviews before and after the NPI as comparable as possible and to minimize mode effects, we attempted to keep the changes to the instruments as small as possible. In addition, it was crucial to resume the field as soon as possible, since the interviews should be conducted before the summer holidays. The translation of the new instructions and questions into the three panel languages had to be scheduled as an additional time phase. Nevertheless, some changes to the instrument were essential. Analytically, we roughly distinguish between content-related, technical and methodological challenges which are, nevertheless, also partially intertwined.

Content-related decisions

Keeping the comparability of the data in mind, we thus had to take a decision regarding which questions we could ask the survey respondents to take themselves back to the situation before the NPI and with which questions this was not possible. Thus, we decided to draw the analytical line between what we could call objective and subjective questions.

We understand objective aspects of the care and educational situation as structural conditions or activities. We asked the survey respondents to take themselves back to the situation before the COVID-19 pandemic when asking them about their care and educational situation. Questions regarding care facilities, schools, or vocational institutions which they were currently attending, as well as questions on language classes and other means to learn German, were supplemented with an interviewer instruction. This instruction followed the questions concerned and the long version reads as follows: “When answering this question, please take yourself back to the situation before the coronavirus crisis, that means before the closing of educational institutions and contact restrictions.” Furthermore, questions regarding activities

such as spending time with people from Germany or from their country of origin were framed with regard to the situation before the NPI.

Questions regarding the living situation of refugee children and adolescents did not, at first, seem to be affected by the NPI. However, as 14% of our sample was still living in collective accommodation in 2018 (at the time of the first wave), we had to take a relocation due to the COVID-19 pandemic into consideration. Questions about their living situation were thus also framed in relation to the situation before the NPI. Additionally, we asked whether their living situation had changed due to the COVID-19 pandemic. Further questions, such as those concerning the previous educational biography, or residence status, i.e. issues that are not affected by the NPI, did not need to be framed.

Subjective aspects entail psychological measurements, (self-reported) health issues such as PTSD, or subjective well-being. Previous research (e.g. Featherman, 1980; Schnell, Hill, & Esser, 2008) has shown that these topics are difficult to measure retrospectively or with reference to a certain time frame as these assessments are strongly affected by the current situation. In some questions, a temporal stimulus (e.g. “in the last week”) is even part of the question and should therefore not be changed. These more subjective questions were thus not framed to the time before the NPI.

Additionally, we extended the instrument in order to account for the current situation caused by the NPI. Apart from asking whether they were worried about their own or their family’s health and whether they have been personally affected by the virus, we were mainly interested in learning about how the NPI affected the care and educational situation. Questions were asked which concern, for example, their learning environment at home during the NPI, the supply of learning material by teachers, and their motivation to study. These questions were based on questions that are also asked in the National Educational Panel Study, a representative study on educational trajectories in Germany (Blossfeld & Roßbach, 2019). This enables us to compare the situation of the refugees surveyed with the situation of other children and adolescents in Germany. Questions about aspects that are particularly relevant for educational success (such as exposure to the German language) and which are affected by the NPI, were asked for both the time before the NPI and the time during the COVID-19 pandemic.

Technical and methodological challenges

The transformation of the face-to-face field into a CATI field made a number of technical adjustments necessary, as did the above-mentioned content-related decisions.

Changes necessary due to the mode switch. In the original CAPI, fewer adjustments had to be made due to the mode switch to the CATI since the instrument was already designed for the interviewers to read the questions. However,

in the case of difficult questions (e.g. on the current residence status), the interviewers usually ask to see official documents if the respondent has difficulty answering the question. This is not possible in the CATI. Instead, the respondents were asked to read an official document to the interviewer. As the interviewer could not see the document, this procedure might be less helpful than when applied in a face-to-face mode.

In the original CASI, on the other hand, more changes had to be made in order to use the instrument for a telephone interview. We will elaborate on this using two examples. First, the use of sliders: For some questions, the respondents were asked to rank their life satisfaction, for example, using a stepless slider between two poles. We assumed that the specific target group of the ReGES study would find this graphical representation easier than the specification of numerical values between 0 and 10 or 0 and 100. The use of such a method in a CATI is, of course, not possible. Thus, the slider was replaced by a field for the direct entry of a numerical value that lies within the predefined answer scale (e.g. from 0 to 10) and the respondents were asked to rank their life satisfaction, for example, on this scale. Second, in order to minimize the effects of the mode switch on the response behaviour, we tried to ensure that the information available to the respondents when answering the questions was kept as consistent as possible despite the mode switch. An example of this was the query of sensitive content such as stress. In order to avoid socially desirable response behaviour, the possibility to refuse to answer was displayed as an explicit answer option in the CASI. We thus discussed whether the option to refuse to answer should be read out as an explicit option in the CATI as well. This might, on the one hand, be a stronger incentive to actually refuse to answer these questions. On the other hand, the mode change increases the risk of denials and socially desirable responses anyway. For this reason, we decided to read out these categories in the CATI.

Changes necessary due to the temporal framing of the question. To frame the questions in respect of the time before the NPI, we used interviewer instructions rather than changing the wording of the questions, which would have reduced the comparability to the sub-sample interviewed in CAPI/CASI mode. In order not to prolong the interview excessively by repeatedly reading the framing instructions, the explicit mention of the time reference was mandatory especially for questions at the beginning of a content block. For the next item, a mandatory short version of the instruction was implemented (“Think about the situation before the coronavirus crisis”) and for the subsequent questions the instruction should only be read out if necessary.

Implementation of additional questions. A decision had to be made as to whether the additional items should be integrated into existing blocks of the instrument according to their thematic orientation or whether the items should be combined in a distinct module and inserted as a new block

into the survey instrument. The advantage of integrating questions into the existing instrument is that the respondents would immediately see the difference between the reference frames of the questions. However, due to the complexity of the filtering within the questionnaire, the implementation of the questions as one block reduces the programming errors. In addition, the integration into existing thematic blocks could lead to order effects that could jeopardize the comparability of the two sub-samples (Oldendick, 2008; Strack, 1992). We therefore decided to ask the additional questions about the situation during the COVID-19 pandemic in a separate module at the end of the interview.

5 Discussion

This paper set out to elaborate on the challenges we were confronted with during the seventh wave of the ReGES study and the solution we adopted in order to continue the field work. The main challenge was to keep the data collected before the implementation of the NPI comparable to the data collected since the introduction of the NPI. We decided to switch the face-to-face field to a telephone field. This required us to make adjustments to our instruments. Even though we tried to keep these adjustments as small as possible, we are aware that the different data collection modes might nevertheless limit the quality of the data. The following questions will have to be examined: Are the respondents able to assign their educational situation according to the situation before the NPI? Will we observe mode effects, and if so, what are their consequences? Last but not least, a particular challenge will be to analyse which bias is caused by a mode switch and which by the consequences of the COVID-19 pandemic. For example, the responses to questions about symptoms of PTSD could be severely affected by both aspects.

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Commentary

The article by Will et al. describes fieldwork challenges caused by COVID-19 for a study of educational experiences among refugee children in Germany: the Refugees in the German Educational System (ReGES) panel study. The article provides an overview and illustration of the types of issues faced by panel surveys that were in the field when COVID-19 struck. It highlights the adaptations and strategic changes that were necessary to complete fieldwork and to maintain comparability between data collected before and after the infections spread and lockdowns were imposed. The paper also highlights the opportunities for new data collection that emerged, with a focus on collecting information on the impacts of COVID-19. More generally, panel studies

such as ReGES should begin considering how to transition from viewing COVID-19 as a “disruption” to thinking about it as a major life course factor to be captured in order to understand its effect on trajectories and outcomes in the short and long term.

A similar short- vs. long-term perspective can be taken regarding the effects of COVID-19 on fieldwork processes and survey research methods. In particular, the immediate focus is appropriately on short-term changes and adaptations to complete data collection efforts that were underway when COVID-19 struck. But survey researchers need to begin thinking about how the pandemic will alter social interactions and fieldwork in the years ahead. Studies of the effects of prior natural disasters have concluded that a major effect has been to accelerate social and demographic trends that were emerging or that were already underway. There is good reason to expect that COVID-19 will likely have similar effects on changes in survey research methods. A number of emerging and continuing data collection trends related to panel surveys are mentioned in this article, which we can expect to continue, and perhaps accelerate, in the coming years. We highlight three of these trends. The first is the value and importance of being able to collect data remotely—that is by telephone, the internet, or by video—from respondents who cannot be visited in person due to reasons of cost, logistics, extenuating circumstances, or preferences. COVID-19 represents a clear barrier to in-person visits for an indeterminate, but likely extended, period. In-person visits will likely not resume quickly. Our own experience running a major panel survey in the United States indicates that respondents were increasingly reluctant to allow interviewers to make in-home visits even before the COVID-19 outbreak. Hence, there is considerable value in developing alternative approaches to conduct interviews remotely.

Second is the necessity to implement mixed-mode data collection and to develop an understanding of the nature, causes, and magnitudes of mode effects. Collecting data using the internet is appealing because it allows remote data collection and is inexpensive. It also offers respondents more privacy and convenience in responding. Additional modes of data collection will be increasingly attractive in the future—for instance, using video technology to conduct interviews with children who cannot easily be interviewed by telephone or the internet, or to administer skills assessments using tests that, until now, have only been administered in person. Other new modes of data collection might include short interviews using text messages—which might be used to collect brief updates on COVID-19 testing, diagnosis, and impacts. Finally, as the article by Will et al. highlights, fieldwork disruption, skipping an interview wave, and a variety of other factors will continue to underscore the value of collecting retrospective data in prospective studies. While there has been considerable development of methods for collecting event

history calendars for defined periods and life history calendars for longer periods, there will likely be increasing payoffs to developing more flexible ways of collecting retrospective data for varying periods due to non-response patterns, field-work disruptions, and other factors. In our current circumstances, such reporting would provide an opportunity to collect retrospective information on respondents' circumstances and outcomes immediately before, during, and immediately after the COVID-19 outbreak and lockdown.

In conclusion, survey research methodologists and practitioners should use the disruption and upheaval caused by COVID-19 to identify and capitalize on important new trends in data collection that will occur faster in the coming months and years than could have previously been imagined.

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Reply to Sastry, McGonagle and Fomby

The commentary on our paper "COVID-19 lockdown during field work—Challenges and strategies in continuing the ReGES study" reflects on different trends of data collection related to panel surveys which might be accelerated in the coming years. We would like to respond to the commentary with reference to the trends outlined and share our experiences with the data collection in ReGES. Whilst we agree that survey researchers need to think about the consequences of the COVID-19 pandemic on the data collection modes, we would like to draw attention that the specific target group needs to be taken under consideration. Not every mode is applicable to the same extent to the same target population.

The first trend mentioned by Sastry et al. concerns the value and importance of collecting data remotely. We agree that, especially since the COVID-19 pandemic, remote data collection has its advantages. Our experiences with the ReGES study show, however, different results concerning data collection modes as the ones mentioned regarding a major panel survey in the United States. Our experiences show that the face-to-face mode is by far the most promising not only in terms of response rate but also in terms of data quality especially compared to self-administrated interviews. We assume that this is related to the specific target population of refugee families, who are often not familiar with social science research in Western countries. Personal contact is important here to provide information about research in general and data protection in particular.

Second, the necessity to implement multiple modes and particularly the increasing application of data collection modes using the internet are mentioned. Whilst we agree that this would largely increase data collection opportunities, we are also reluctant to accept their efficiency for all pop-

ulations alike. This, on the one hand, depends on a possibly limited access to not only a sufficiently stable internet connection but the availability of devices on which we could conduct more complex skill assessments. We can see this in general also during the COVID-19 pandemic, in which it is challenging for teachers and educational staff to sufficiently support home schooling. However, we also see this in our special sample, in which a large number of those surveyed conduct the online surveys on a smartphone that would not be suitable for carrying out a competence test. For this wave we thus shied away from online competence test. But since we share the assessment of Sastry et al. in general, we also asked about the availability of internet access and devices in the current survey wave, to evaluate opportunities for further data collection.

Whilst internet-based data collection modes might offer more privacy, they at the same time limit control on who answers the survey as well as the reliability of the answers. Furthermore, as the recording of educational trajectories and the educational situation is pretty complex, at least in the highly stratified German educational system, the interviewers were trained to support this assessment (without, of course, indicating the correct answer). This support could not be accessed easily in online data collection modes. Furthermore, a fair share of our respondents have only limited reading skills and are often dependent on the help of the interviewer. There is now extensive research on the use of audio files (see e.g. Falb et al., 2016; Le, Blum, Magnani, Hewett, & Do, 2006)² so that illiterate people can also be interviewed using self-administered instruments. But especially when surveying migrants in different languages of origin, new problems arise again (see Gentile, Heinritz, & Will, 2019).

As Sastry et al. mentioned, the discussion about the use of new survey methods also with the increased use of modern technologies will have to accelerate strongly. The solutions, however, will have to be dependent on the target group, to avoid (new) selectivity.

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²Citations are listed in the references of the main article.