Centre for Rural Development (SLE)

SLE METHOD BRIEF 7 - 2020

Digital Key Informant Interviews (DKII)

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Abstract

Due to the COVID-19 Pandemic and travel restrictions, typical qualitative research on site was not feasible for the SLE overseas projects (OP) in 2020. A commonly used tool in qualitative research, the Key Informant Interviews (KII), became digital and served as a useful methodological approach of remote research. Digital Key Informant Interviews (DKII) are interviews conducted through digital devices with key informants on a specific topic of interest. Same as KII, DKII are used to obtain in-depth knowledge on the research topic and to hear from the voices of various stakeholders. DKII allow reaching key informants without travelling but require a stable internet connection on both sides. To reach interviewees without access to a stable internet connection is challenging but can be realized through cooperation with local researchers or qualified personnel. The method allows the collection of valuable quotes, while its explorative character often leads to unexpected findings regarding research questions. This method brief describes the DKII approach based on the experience of the SLE overseas project team Cambodia 2020 (AP Cambodia).

Introduction

Key Informant Interviews (KII) are qualitative in-depth interviews with individuals that have been selected for their expert knowledge about a phenomenon of interest (Lavrakas 2008). With its explorative character, KII are especially recommended when little data regarding the research topic exists, when there is no underlying theory and when reasons and explanations for research results are sought. KII are a commonly used tool in qualitative research to gain an in-depth understanding of "[...] reasons for success or failure to implement evidence-based practice or to identify strategies for facilitating implementation" (Palinkas et al. 2015). The implementation of KII is relatively easy, though outcomes vary with pre-existing knowledge about the topic within the research team, organizational skills and capacity to experience with qualitative content analysis. Alternative methods are focus group discussions, panel discussions, and interviews without guidelines.

SLE method briefs are created from the practical experiences of our alumni in their interdisciplinary research projects. Lessons learned and good practices are compiled. In each brief, we present the method that is explained clearly, step by step, and with the help of practical examples. With its method briefs, the SLE aims to support researchers and practitioners who are active in solution-oriented and transformative international development work by providing insights into hands-on methods in a structured manner, so that the wheel does not always have to be reinvented.

The Centre for Rural Development (SLE) is affiliated with the Albrecht Daniel Thaer-Institute for Agricultural and Horticultural Sciences in the Faculty of Life Sciences at the Humboldt-Universität zu Berlin. Its work concentrates on four branches: international cooperation for sustainable development as a post-master degree course, training courses for international leaders and experts in the field of international cooperation, research on sustainability issues, and advisory services for universities and organisations.

ISSN: 1433-4585

Digital Key Informant Interviews (DKII) are a particular type of KII that are conducted through digital devices. In comparison to KII, DKII are chosen when researchers cannot or do not want to travel because of a pandemic, a crisis, limited funds, lack of justification for travel, or to reduce the CO_2 footprint. DKII are sparsely described in scientific literature but can be considered an approach for fast and low-cost data collection. During the COVID-19 pandemic, which has led to an upsurge in remote research activities, DKII have become particularly important in gaining a better understanding of the study context and to complement findings from quantitative data analysis.

When being combined with qualitative content analysis following Mayring (2015) or the structured qualitative content analysis according to Kuckartz (2018) using the software MAXQDA, material collected via DKII can be transformed into valuable data, proving hypotheses and generating unexpected findings and recommendations. Similar to the requirements for on-site KII, detailed planning, accurate implementation and careful analysis are important to result in useful findings and validity (Kumar 1989).

Although DKII and KII are very similar in their approach, there are some differences and particularities that need to be considered when conducting DKII. This factsheet will summarise the DKII experience from the overseas project team Cambodia 2020 (OP Cambodia) with the topic "Cooperating out of poverty – Effects of Agricultural Cooperatives on Livelihoods and Food Security in Cambodia". As part of the 58th SLE Cohort, the research team conducted remote research to avoid travelling and contributing to the spread of COVID-19.

Application of the method

Amongst others, DKII are used to generate valuable data while not being able to travel. Distances might be too far to be travelled, too expensive to access or, as was the case for SLE research teams of the 58. Cohort, the COVID-19 Pandemic made it intolerable for scientists to put interviewees' health at risk through face-to-face interview scenarios. In this context, DKII can facilitate data collection, deepen the understanding of the study context and complement the findings of quantitative data.

The use of DKII requires four general steps which will be described in the following sections: Sampling, designing interview guides, implementation, and analysing data.

Sampling

Commonly, purposeful sampling is used for KII to select research participants. The sample includes individuals and groups with in-depth knowledge of research interests. First, the total number of interviews is set. To gain various points of view, it is then beneficial to decide on the number of interviews conducted with different stakeholder groups, e.g., two with a ministry, two with an NGO. If there is a collaboration with a partner organisation, their contacts can be helpful. Also, the partner organisation may facilitate contacts to interviewees, on higher administrative levels, e.g., deputies. In case there are key informants that cannot be reached through digital devices, like farmers living in rural and remote areas without access to the internet, a third party can be employed to conduct the interviews on site with respective key informants. An initial meeting with the partner organisation, the translator and the field staff is useful to explain the objectives of the interviews and selection of target persons in the beginning of the study. Organising interviews and getting the desired contacts can take quite a while, thus, this needs to be considered in the research time plan.

Design of interview guide

Similar to KII, different formats can be applied during DKII: structured guideline interviews, semi-structured interviews, or narrative interviews. In a structured interview all interviewees are posed the same questions in an identical order, sometimes even getting to choose from preformulated answers. Semi-structured interviews allow spontaneous changes depending on the interview dynamics, meaning that not all questions of the guideline are necessarily posed in the exact order. The interview guides primarily offer open questions covering relevant subjects of research. Interview guides can be translated beforehand into the respective language to facilitate the implementation. Narrative interviews aim at impromptu narration, during which the narrator may not be interrupted and which he or she finishes him- or herself.

For DKII, the use of interview guides helps to structure the procedure and contents of the conversation and keep track of the topics covered, as unforeseen events like unstable internet connection can challenge the flow of the interview and the attention span. Slight modifications of the guides due to the interviewees field of experience and background are recommended.

Implementation

For the implementation, a timeframe in which

the interviews are conducted is set. All interviews should be held by two people -- one interviewer and one notetaker. All interviewees need to be asked for their consent before starting. The interviews should last 30 to max. 90 minutes and can be recorded, if agreed upon with the interviewee. For mobile devices, the interviews can be recorded with the voice memo function; for all devices that support Skype or zoom, the build-in recording functions of Skype and zoom can be used.

During DKII, notes should be taken and later supplemented by relevant statements from the audio recording. The transcription can be facilitated using a software like otranscribe (https://otranscribe.com/). Alternatively, zoom offers automated subtitles for spoken English, which can be saved as a written transcription after the interview. The interviews conducted by the translator should be transcribed and translated into English to give the research team the data for further processing. To secure appropriate implementation of the on-site interviews, the translator should be briefed on most important topics covered, sensible topics, research objectives, biases and further processing.

Data Analysis
The analysis process can start with a deductive analysis (from general to specific, using existing categories) based on pre-defined themes and subjects drawn from the previous research process and be followed by an inductive analysis (from specific to general, developing on the material) to identify subthemes and new subjects which arise during the interviews. These first two steps pre-structure the coding process. The mix of a concept-driven and a data-driven development of codes helps to confirm or disprove hypotheses and to identify topics which had avoided the attention of researchers thus far.

The software MAXQDA (https://www.maxqda.de/) allows for efficient coding, the digital assignment of categories to the statements and the creation of new categories. All the data referring to the same code is pooled visually and statements of certain persons and groups on certain topics can be contrasted easily with statements from others. This process can also be done manually on paper as well as in tables or a matrix, or with other software like ATLAS.ti (https://atlasti.com/).

Practical Experience

The research team OP Cambodia used a mixed methods approach including a quantitative household survey, methods from the toolbox of Participatory Research Appraisal (PRA) and Digital Key Informant Interviews. The method DKII was integrated into the research time plan starting in July 2020 with preparations and ending in December 2020 with results and discussion. The DKII management was a fulltime workload for one research team member.

From 29/09/2020 to 12/10/2020, the team conducted 20 DKII with different stakeholders, e.g., three experts from ministries in charge of agricultural cooperatives (ACs), four experts working with the GIZ, two commune chiefs, four land recipients, two representatives from NGOs, two AC representatives, one member of a farmers' association and two private sector and contract farming representatives. To reach farmers of the target communities and be able to speak with interviewees in their local language, a translator was hired to execute these interviews . Thus, half of the DKII was conducted via video communication software by the Berlin research team in English, while the other part was conducted by a translator during the field phase in Kampong Thom and Kratie in the local language Khmer. To get there, the following steps were taken:

Sampling
The team worked with local consultants. In the beginning, a digital meeting with their local coordinator and the translator took place to assign and divide organisational tasks. One team member from the Berlin research team was responsible for the overall interview coordination, including the planning and scheduling of interviews and interviewer. This organisational tool gave the whole team an overview about the interview schedule, which can be supplemented by time, mobile number, e-mail and video communication invitation link.

As set out during a meeting with GIZ staff in Phnom Penh, the GIZ together with the local coordinator and the translator facilitated access to interview partners on the regional and ministerial level. Due to the nature of remote research, the Berlin team strongly relied on the contacts provided to them from the partner organization. It is important to mention that a particular effort was made to also include vulnerable households living within the target communities to participate in the KII. Unfortunately, only three out of eight targeted vulnerable households (land recipients who are member of the local cooperative) participated in the on-site interviews.

Design of interview guide
One interview guide per stakeholder (NGO, private

Interviewpartner: Land recipients/ smallholder farmers

Commune/ Province:	☐ Dar/ Kratie ☐ Tipou/ Kampong Thom
Name of Cooperative:	☐ Aukorkei Agricultural Cooperative ☐ Sen Akphiwat Samaki Agricultural Cooperative ☐ None
Name of land recipient / Interviewee:	
Position within the AC:	
Date and time (from...to):	
Interviewer:	
Note taker:	
Informed Consent	
Your name is _____. We are conducting a study for German corporation for international cooperation (GIZ) and the Centre for Rural Development (SLE) of Humboldt University Berlin, Germany. The purpose of this study is to learn more about what factors contribute to food security and secured livelihoods in communities that benefit from the ILF programs (Improving Livelihoods and Food Security in Cambodia 1 & 2). We would like to request your cooperation for approximately 60 minutes to ask you some questions. Your participation is very important and will help our partners to develop suitable measures to improve livelihoods and food security in the target communities. You can refuse to answer any question that you don't want to answer, or to pause or terminate the interview at any time. If you have any questions about this research, you can contact the SLE project team via the mail address that we used to contact you. Do you have questions for me?	
Do you agree to be interviewed?	☐ yes ☐ no
Do you agree that we record the interview for internal use?	☐ yes ☐ no
Do you agree that we take photos and use them in our report?	☐ yes ☐ no

Figure 1: Interview guide for DKII with land recipients in Cambodia (Source: own elaboration).

company, land recipient, government) was designed to facilitate the interview execution and to remind the interviewers to obtain the consent for further data processing (Figure 1). Each interview guide was created by searching for relevant information about interviewees and creating interview questions leaning on the research questions.

Implementation

The DKII were conducted by the whole Berlin research team. The responsible team member assigned the team members in pairs to different interviews and held a briefing on the execution. The interviewers were made responsible to prepare themselves specifically on the interviewee, which meant investigating the background of interviewees and their connection to the research topic and creating a personal introduction part for each interview. A specific requisite for DKII is that the interviewees should get a satisfactory and transparent explanation of the interview setting including a visual introduction of the interviewer and the note taker with cameras switched on, as well as an explanation of the recording method. Furthermore, it is important to speak as slow as the internet connection requires and to leave pauses in speech to enhance mutual understanding. After the interviews were finished, the recordings were saved two times in different places to prevent data loss.

To secure appropriate implementation of the on-site KII, the translator was briefed in a digital meeting on most important topics covered, sensible topics, research objectives, possible biases, and further processing including translation and data analysis before starting the implementation phase. Short questions were communicated via e-mail during the whole research process. Additionally, a meeting for a progress report was held after the translator finished all on-site interviews. Then, the translator transcribed and translated the interviews she conducted, and the research team finished the transcription of the online interviews. After that, the material was ready to be coded.

Data Analysis

The coding was done with multiple research team members via MAXQDA. Interviews were divided between the coders, transcribed, and analysed. Figure 2 is an example of the Coding System of the AP Cambodia 2020, showing main categories and subcodes. Following the coding process, a document in-

heriting quotes and summaries was made available to the whole team. The final assignment of data from the DKII to the report sections was done by one person but could possibly be done by the responsible team member each for their report section during the writing process. As for qualitative text analysis, the more loops the better. Thus, another cycle of analysis would have led to a clearer division and easier allocation of coded segments. The data analysis took approximately one month.

The analysis of DKII is time intense as it is a continuous process because the survey and evaluation run in parallel; while interviews are still being carried out, the finished interviews can already be coded. Furthermore, to handle the big and diverse quantity of data, time expenditure for clustering, summarising and analysis was high. For 20 interviews with 199 pages of coded material, it took OP Cambodia around four weeks to process the data. The software MAXQDA can help to fasten up the analysis by working digitally from the start. With the research team, it is useful to clearly decide the procedure of analysis beforehand (inductive/deductive; concept-driven/ data-driven development of codes) and assign two

Figure 2: Code System of OP Cambodia 2020 used for data analysis using MAXQDA (Source: own elaboration).

persons for coding. The persons who analyse need to stay in close contact to do the process likewise and avoid bias. Since the Berlin research team did not carry out the on-site interviews themselves, it was challenging to interpret some parts of the transcripts from the translator. This was due to a loss of meaning through the translation process from Khmer to English, the circumstance that the translator conducted the on-site interviews lonesome and thus a person for notetaking was missing and the inability to analyse video material due to a lack of language skills. Another reason for the difficulty to contextualise the information was that OP Cambodia was not in the place of research – thus there were only selected pictures, videos and written material to imagine the context and write an analysis. To levitate this contextualisation issue, the team tried to inform itself as much as possible about the key informants' personal situation and living environment.

Specifics of the data and data collection

The data acquisition strategy of OP Cambodia has not only been based on digital interviews conducted by the Berlin research team but also on on-site interviews done by a Cambodian translator. Thus, a close coordination of all persons involved was required. A key specific of DKII (compared to KII) is that the influence on the implementation of interviews that are conducted by a third person in remote areas is much lower. For these interviews and the respective data, the research team must work closely with the translator to keep misunderstandings as low as possible. Regular meetings to organise the interview schedule, discuss the modification of interview guides and to manage the implementation with the respective persons involved (e.g. provision of equipment and transportation) are crucial for the success of the method.

Advantages and disadvantages of DKII

KII are known for their advantage to acquire full statements and detailed explanations on a certain topic which add vividness on otherwise abstract, representative quantitative data. They allow spontaneous changes during implementation due to direct interaction and do not require waiting on raw data.

Unfavourable aspects of KII are the time intensity of the method due to transcription, coding with constant adjustments and loops and analysis. The quantity of the acquired data can be overwhelming -- it is not pre-structured and needs reduction.

The table below shows additional advantages and disadvantages of DKII.

Advantages	Disadvantages
• low-cost data acquisition as travelling is avoided • division of data acquisition and analysis speed up the research process and allow to learn digital project management and personnel acquisition • contribution of local experts to the quality improvement of the project • if DKII follow quantitative research: perspectives of the Global South on the unit of study can be gained • if DKII are conducted in advance: opportunity to adjust quantitative research based on initial interviews	• hard access to less heard voices: researcher is dependent on contacts and persons on-site in order to involve subjects who might otherwise not have been included in the research (e.g. farmers in areas with no internet connection or without access to digital devices) • errors on the translation / misunderstanding, different understandings of specific terms • in case of instable internet connection and a lack of video, interpersonal relationship is reduced; the creation of a trusting environment for the interviewee is hampered • dividing the data acquisition and analysis on several persons poses the difficulty of inconsistency of coding and misinterpretation • biases, instable internet connection and language barriers can lead to incomplete interviews

Limitations and challenges of the method

Several challenges should be considered when choosing DKII:

For the research team SLE-Cambodia, DKII were conducted by the team itself digitally in English language, but interviews with farmers and other interviews that necessitated Khmer had to be outsourced to a Cambodian translator and a local coordinator.

DKII with on-site interviews rely on local research assistants for coordination and implementation of interviews with farmers and may result in less control over the process. As in this example, the GIZ who partly organised interviews and provided contacts was a filter for interview selection. There was no opportunity to get an own idea of the circumstances and contacts. The remote research left the team reliant on the partner organisation, which created a possible bias in the interview selection process. However, valuable key informants without digital devices or internet are not achievable without the help of a local assistant. If the research team would have wanted to do the interviews itself, only persons with access to internet would have been reached.

Regarding execution, the research team identified three ways of dealing with remote KII in an unknown language: 1) Live via a video communication software with direct translation from Khmer to English and back, 2) video recording with subtitles or synchronization, and 3) full reliance on the translator who delivers a script and photos afterwards. Direct interviews with translation are very time-consuming as half of the time for questions is lost through translation. Therefore, the DKII with direct translation as tried with a key informant from the Cambodian ministry is not recommended.

Note here that a translator or external interviewer may lead to biases in the interview performance, translation and selection of questions. DKII are a research method with results depending very much on the person executing the DKII, as personal influence on the interview course can hardly be omitted. From this the question arises: how are subcontractors trained -- by means of a test interview or role play? In the case of the Cambodian research, the PRA methods “Method for Impact Assessment of Programs and Projects (MAPP)” and “SWOT” were tested but the interview situation was not. The translator was trained in a role play scenario in the form of a test interview, but this happened during the application process and was very much focused on the correct translation of sentences. For the on-site interviews, only one organisational meeting between the translator and the coordinator was held, including explanations on the particularities of different stakeholders and focus and objective of the research. For coming DKIIs it is crucial to integrate all persons involved in the execution of DKII during the whole process to assure a common understanding and motivation of the research and avoid bias.

Overall, collaboration on equal footing is difficult when most of the research design is developed beforehand. To increase ownership, align power relations and avoid the solely steering by the research team, the on-site interviewer can be involved in planning and data reprocessing or get involved in all stages of the research process. One possible approach to increase context information and to increase awareness is to involve research units in the research process (see Co-research concepts). This, however, makes it necessary that co-researchers are involved in the project right from the start and participate in the formulation of research questions that respond to their local interest.

Lessons Learned

When deciding on this method, the researcher must be clear about several issues that will come up. In the case of AP Cambodia, the research team learned that:

- Everyone is an expert -- including all local partners. The research team members are the facilitators, seeking to uncover and share their knowledge. Thus, it is important to communicate and create awareness that farmers have as much

valuable knowledge to share and interviews with them are as worthy as the ones with other stakeholders such as governments, private sector actors, NGOs etc. Hence, they should be done with the same organisational effort.

• Digital small talk to create a suitable atmosphere is difficult; thus, as much interpersonal exchange as is drawn from on-site KII cannot be expected. Digital small talk can be done by asking interviewees on their surrounding like the picture in the back or the landscape seen, as well as being prepared to chat on the current climate and socio-political situation the interviewee lives in. Besides, a small introduction game can create a casual atmosphere.

• Semi-structured interviews based on a guide save time and help to focus on topics by importance.

• To go deeper, to stay curious and to not let one get carried away by the conversation are principles which should be shared with all interviewers.

• Agreements on the rules of implementation should be done in a meeting with the whole research team before starting the first interview (e.g. fitting the schedule, deciding on full/part notes/transcription and photos during/after the interview, the most important questions and which to skip in case of time limit).

• Furthermore, it is recommended to conduct the DKII with two persons, an interviewer and a notetaker, and similarly the on-site KII, with a notetaker and an interviewer.

• Photos of the interviews (interviewees, surrounding, most important place or object of discussion) serve later as a basis to assign the quotes, especially in presentations, and to illustrate what was discussed. Obtaining consent from the interviewees for further use of these photos is recommended.

• Writing transcripts for all interviews saves the accuracy of the collected information and facilitates further processing by multiple analysts.

• The time needed to process the data should not be underestimated.

• Agreements on coding, analysis, responsibilities, and deadlines should be done with all persons involved in this process in a meeting before the analysis phase (Which codes/colours? Which interviews are coded by which person? When to be done?).

• Discussions with other team members on preliminary findings can have a positive influence on the process of analysis and give it a new direction.

• Additionally, the local interpretation of important terms of the field of study should be reflected best beforehand by talking with locals about how terms are used locally, and then result in using easily understood, alternative wording and analysis.

Further reading

On the practical application of the method
This paper presents the basics of this systematic method of qualitative data analysis, highlights its key characteristics, and describes a typical workflow:

Kuckartz, U. (2019). Qualitative Text Analysis: A Systematic Approach. In Kaiser G., Presmeg N. (eds) Compendium for Early Career Researchers in Mathematics Education. doi: 10.1007/978-3-030-15636-7_8.

This book offers a detailed description of qualitative data analysis with MAXQDA:

Kuckartz, U. (2018). Qualitative Inhaltsanalyse. Methoden, Praxis, Computerunterstützung. Beltz Juventa: Weinheim, Basel.

On the theoretical background of the method

Kumar, K. (1989). Conducting Key Informant Interviews in Developing Countries. A.I.D. Program Design and Evaluation Methodology report No.13.

Lavrakas, P. (2008). Encyclopedia of Survey Research Methods. Key Informant. doi: 10.4135/9781412963947.n260.

Mayring, P. (2000). Qualitative Content Analysis. Forum: Qualitative Social Research, Vol 1, No 2 (2000): Qualitative Methods in Various Disciplines I: Psychology.

Palinkas LA., Horwitz SM., Green CA., Wisdom JP., Duan N., Hoagwood K. (2015). Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research. Adm Policy Ment Health. doi: 10.1007/s10488-013-0528-y.

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