

Application of Interview Protocol Refinement Framework in Systematically Developing and Refining a Semi-structured Interview Protocol

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Abstract. A semi-structured interview is a data collection method used in qualitative inquiry. It involves the use of preconstructed questions to elicit information about a topic under investigation. A well-prepared interview protocol is an important tool for collecting quality data. Hence, preparing interview protocols and refining them to ensure precision and relevance is an important step to warrant the credibility and quality of data. This article discusses the steps taken to refine an interview protocol developed to conduct an analysis of the English language speaking skills needs of front office operators in the Maldives tourism industry. It describes the application of the Interview Protocol Refinement (IPR) Framework to refine the interview protocol. The four phases of the IPR Framework were used: (1) ensuring interview questions aligned with research questions, (2) constructing an inquiry-based conversation, (3) receiving feedback on the interview protocol, and (4) piloting the interview protocol. The application of the IPR Framework resulted in a fine-tuned interview protocol. The first phase helped to attain interview questions aligned with research questions. This phase helped in fine-tuning the interview protocol by ensuring that the interview questions aligned with the purpose of the research. The second phase allowed the building of an inquiry-based conversation that reflects the context of the research, thus creating an interview protocol designed to obtain specific information through conversation. The next phase aided in improving the protocol based on readers' feedback. This phase helped in refining the interview questions by changing the content and wording of some questions and reordering them. The last phase resulted in conducting an interview in a real setting and testing the interview protocol. This helped to refine the interview protocol further by rephrasing interview questions for clarity, adding details to some questions, and modifying the linguistic composition of some questions. The IPR Framework involves an iterative refining process, thus enhancing the quality and trustworthiness of the interview protocol.

1 Introduction

Qualitative researchers believe that reality is subjective, and it is obtained by exploring the views and perceptions of others in a given phenomenon. They trust that experiences are

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interpreted through past experiences and knowledge [1] and believe that interaction between the interviewer and the interviewee helps in creating knowledge [2]. Therefore, interacting with others and understanding and interpreting their perception of a given topic is an important part of qualitative research. This makes interviews a commonly used data collection method in qualitative research to collect data from participants through interaction. Interviews occur when researchers ask open-ended questions to individuals or groups of people, record their answers [3], and offer open-ended questions to explore an aspect of life about which the interviewee has experience and insights [4].

Although the interview is a common practice in qualitative research, it is considered a complex process that requires methodological knowledge and skills to conduct an interview. It requires a high level of skills and knowledge of the interviewer, who needs to be familiar with methodological options and conceptual issues of creating knowledge through interactions [2]. Hence, acquiring skills, determining methods, and crafting interview protocols with interview questions to achieve the purpose of the research is important [5].

Semi-structured interviews aid in collecting data using protocols crafted in advance while allowing some level of flexibility. A semi-structured interview is a guide based on a main topic and helps researchers make deep discoveries [6]. It generally gives a framework of themes and specific topics planned in advance to guide the researcher to explore [7]. A semi-structured interview allows the researcher to prepare questions in advance in order to stay focused on particular themes and to explore specific topics or research questions the researcher intends to explore. Hence, a pre-prepared protocol is an important tool in conducting a semi-structured interview. According to [3], an interview protocol in a form created by the researcher includes instructions for how the interview will be conducted, questions to be asked, and space to write notes. Interchangeably used as interview guides in the research literature, interview protocols consist of main questions aligned to the research questions, potential follow-up questions and probes, or an outline of the topics to be addressed [2]. A reliable interview protocol is an essential instrument to maintain the rigor of qualitative research. Hence, developing and refining the interview protocol before data collection is an important step to ensure the protocol is a reliable one.

The Interview Protocol Refinement (IPR) Framework is a framework proposed by Castillo-Montoya in 2016 to systematically develop and refine interview protocols. The IPR Framework helps qualitative researchers strengthen the reliability of interview protocols, which ultimately increases the quality of data obtained through the interviews [5]. The IPR Framework is a four-phased framework with:

- Phase 1: Ensuring interview questions align with research questions
- Phase 2: Constructing an inquiry-based conversation
- Phase 3: Receiving feedback on interview protocols
- Phase 4: Piloting the interview protocol

1.1 Phase 1: Ensuring interview questions align with research questions

The first phase of the framework deals with aligning research questions and interview questions. This phase confirms the purpose of the interview questions and their necessity for the research, as researchers want intentional and necessary interview questions [5] to help them answer the research questions through the data. Ensuring interview questions are appropriate and capable of supporting the aims of the research is also important, particularly for novice researchers [1]. He also suggests that the main questions should closely align with the research questions. This phase helps the researcher to stay focused on the aim of the study.

In this phase, the researcher forms a matrix for mapping the interview questions onto the research questions. This matrix is later used to mark which interview questions elicit answers to which research questions. This also helps the researcher understand any gaps in interview

questions in collecting information for particular research questions, which may not be noticed until after data collection [5].

1.2 Phase 2: Constructing an inquiry-based conversation

After ensuring the interview questions align with the research question, the next phase is allocated to create an inquiry-based conversation. An interview protocol helps interviewees inquire about certain topics or experiences to obtain particular information through conversation. [5] named this balance of inquiring and conversing as inquiry-based conversation and mentions that such a conversation is achieved by taking the steps as a) interview questions written differently from the research questions; b) an organization following social rules of ordinary conversation; c) a variety of questions; d) a script with likely follow-up and prompt questions.

1.3 Phase 3: Receiving feedback on interview protocols

Phase 1 and Phase 2 resulted in the systematic development of the interview protocol. In the third phase, the developed interview protocol is presented for feedback. Obtaining feedback enhances the reliability of the interview protocol and enhances its trustworthiness as a research instrument [5]. She proposed different ways to receive feedback for the interview protocol, like having a close reader examine the interview protocol and receiving feedback from participants using a think-aloud session. This paper used the method of close reading by reviewers using the given checklist. This involves a colleague, a member of the research team, or a research assistant reviewing the interview protocol by examining its structure, length, writing style, and comprehension [5].

1.4 Phase 4: Piloting the interview protocol

The final phase involves piloting the interview protocol after making amendments based on the feedback received. This phase requires simulating the interview in real conditions, and the researchers' notes in this phase help in improving the interview protocol [5]. Participants for this phase should have similar characteristics as the actual participants of the study.

This is a methodological paper highlighting the application of the Interview Protocol Refinement Framework in different phases of developing and refining a semi-structured interview protocol to conduct a needs analysis.

2 Methodology

The purpose of this paper is to systematically develop and refine an interview protocol using the IPR Framework to conduct a needs analysis of the English language speaking skills of front office operators in the Maldives' tourism industry. It entails a qualitative approach and involves different methods in different phases.

2.1 Background of the interview protocol:

The interview protocol aims to collect data from workers engaged in the front office operations in the hospitality industry in the Maldives to analyze their English language speaking skills needs. It is part of a larger research to design, develop, and evaluate a mobile learning module specifically for employees of the tourism industry in the Maldives. This

interview protocol is used to find answers to the research questions in the first phase, the 'Analysis Phase' of the research, and aims to answer the following research question.

What is the English language speaking skills needs of Front Office operators in the tourism industry of the Maldives in terms of:

- Importance of learning English language speaking skills
- Problems in learning English language speaking skills
- Preferred activities in learning English language speaking skills
- Readiness for mobile learning

IPR Framework phases: The IPR Framework's phases were followed as follows:

- Phase 1: Ensuring interview questions align with research questions

The researchers developed interview questions, aligning them with the pre-defined research questions of the main study. A matrix was used to record the findings from this phase.

- Phase 2: Constructing an inquiry-based conversation

The interview questions were rephrased to achieve a conversation with the interviewees.

- Phase 3: Receiving feedback on interview protocols

The interview protocol was sent to four close readers to get their feedback based on a checklist.

- Phase 4: Piloting the interview protocol

The modified interview protocol was used in conducting interviews with three participants who have similar characteristics as the actual participants of the research.

3 Results

This section reports the findings of each phase of the interview refinement process.

3.1 Interview protocol development and refinement process:

3.1.1 Phase 1: Ensuring interview questions align with research questions

As the first step of crafting the interview protocol, a matrix was created using the format proposed by [5]. The main research question and its sub-questions were copied onto the matrix, and interview questions were added. Both groups of these questions were mapped to see their alignment, and necessary questions were added to confirm all the sub-questions were covered.

The researchers were careful in writing the interview questions suitable for needs analysis based on the model of ESP needs analysis [8]. This is the model adopted in the main research. This model helps in analyzing needs in the target situation, learning situation, present situation, and means analysis. With this model, the interviews collect data on the participants' professional information on when and how English is used at work, personal information to

analyze their learning, English language information regarding what their current knowledge and skills are, what they lack, effective ways they learn language skills, and how language knowledge and skills are used in their career.

This phase resulted in a marked matrix where all the interview questions were mapped onto the research questions, as shown in the table below. This helped the researchers to be clear that there are no gaps in interview questions that could leave any part of the research question unanswered, ensuring the interview protocol will collect information to answer the research question.

Table 1. Interview protocol matrix for study on English language speaking skills needs of front office operators of the tourism industry in the Maldives.

Research Question: <i>What are the English language speaking skills needs of front office operators in the Maldives' tourism industry?</i>	<i>Background</i>	RQ Sub-question 1: Importance of learning English language speaking skills	RQ Sub-question 2: Problems in learning English language speaking skills	RQ Sub-question 3: Preferred activities in learning English language speaking skills	RQ Sub-question 4: Readiness for mobile learning
	Interview Questions				
Interview question 1	x				
Interview question 2	x	x			
Interview question 3		x			
Interview question 4			x		
Interview question 5				x	
Interview question 6				x	
Interview question 7					x
Interview question 8	x				

3.1.2 Phase 2: Constructing an inquiry-based conversation

This phase involves developing an inquiry-based conversation through the interview protocol. Firstly, it is ensured that all the interview questions were written differently from the research question or sub-questions. For this, the interview questions were written in plain language without academic terms or keywords. For example, instead of using the phrase '*readiness for mobile learning*,' the interview question asks about their views on learning

using mobile devices. If the research question is directly converted to an interview question, it might be difficult for the interviewer to understand it.

Secondly, measures were taken to confirm that the interview protocol follows the social rules of ordinary conversation. This includes organizing the questions as per the conversation norms in the context of the research. For this, how an ordinary conversation occurs in the research context was considered apart from the norms of the conversations in the interviewees' context of work. This favored having a clear organization of the interview questions.

As a third step to ensure inquiry-based conversation, the interview protocol comprises a variety of questions. The first question was an introductory question that allowed the interviewer and the interviewee to build rapport and to understand the interviewees' background, their work, and their workspace. An introductory question aids in beginning an interview with ease is non-threatening and asks for narrative descriptions [5]. This question helps to create a comfortable environment as well as build the foundation for the rest of the interview so that the interviewer can personalize the rest of the questions based on the respondent's background. Moreover, the interview questions were formulated in a way that could be answered by the interviewees through a recall process without references. This allowed a normal flow of the conversation as the interviewees could speak from their experience as learners or as employees. For instance, the second question asked about the importance of the English language to do tasks as a front office operator. The interviewee could talk about their current work experience or past experience in the field, if any.

Another step to maintain the flow of a natural conversation was the organization of the questions. Questions were organized to ask one question at a time to have an ordinary flow in the conversation. Before asking the key questions of the interview, a transition question was used to connect the initial setting to the main focus of the interview. Transition questions move the interview toward the main questions and maintain the flow [5]. Transition questions allow the interviewer to connect the staff's background and their tasks at work to the importance of English language speaking skills for their career. These questions were broken into separate questions considering the sub-questions of the research question instead of asking one general question. The key questions were especially placed in the middle of the interview after building rapport and getting some background information. As reported by [1], key questions are broad. They are also more focused on the topic of the research. After subsequent key questions, a general question was given as a closing question to allow interviewees to add extra details or to fill any gaps they may have left in answering the previous questions. Overall, the protocol contains a variety of questions, including introductory questions, transition questions, key questions, and closing questions.

The next step to create an inquiry-based conversation was adding a script to the interview protocol. These scripts guide the interviewer to direct the conversation to the target path and to stay focused while maintaining the conversation's flow in a natural manner. These scripts also help the interviewer as well as the interviewees. Such scripts include introducing the purpose of the interview in the beginning, summarizing before switching the topic, or briefing on the next topic. For example, the script '*...as I have mentioned in my invitation notice, the aim of this part of my research is to analyze the English language speaking skills and learning needs of Front Office operators in the tourism sector*' and tell the interviewees about the purpose of the interview. Similarly, the script '*In the next few questions I would like to ask about English speaking areas you need, learning activities you prefer, how do you like to learn, and problems you face in learning*' briefs the interviewee on what to expect in the upcoming questions. Though the scripts are written, the interviewers are not expected to read them word-for-word but use them as guiding words to have an inquiry-based conversation.

Finally, possible follow-up and probing questions were added in order to prompt most of the information required by the researcher. Follow-up questions help in exploring various

dimensions so that the researcher does not end up with surface-level information [1]. These potential follow-up questions and probes are thought to be useful in eliciting further information from the interviewees. This includes clarifying questions and elaborating questions [3]. Though the follow-up questions and probes largely depend on the responses of the interviewees during the interview, preparing some of these questions in advance could help the interviewer solicit the information in the interest of the research questions.

3.1.3 Phase 3: Receiving feedback on interview protocols

Once the interview protocol is developed in the first two phases, it is sent to receive feedback. This process enhances the credibility of the protocol as an instrument, thus strengthening the trustworthiness of the research. For this, the interview protocol was sent to four reviewers to review and give their feedback using the Activity Checklist for Close Reading of Interview Protocol proposed by Castillo-Montoya in the IPR Framework. The checklist covers fifteen aspects to decide ‘yes’ or ‘no’ and to include feedback after reading the questions aloud. The key areas of the checklist include the structure of the interview protocol, how questions and statements are written, length, and comprehension.

All reviewers were contacted via phone to explain what this phase involves, and once they agreed, an email was sent to them with details of the process, the interview protocol, and the checklist. The reviewers were purposefully selected based on their experience as researchers in the social science field and their experience in teaching the English language to adult learners. They are all lecturers or are in management positions in different higher education institutions in the Maldives. This was done to ensure they could give feedback on the interview protocol as a research instrument aimed at analyzing the English language speaking skills needs of a group of adult learners in the context of Maldives. All reviewers were requested to fill out the checklist and to include their feedback or suggestions in the feedback column. Most of them sent their feedback within two weeks. However, one of them took a longer time.

Table 2. Information of reviewers in Phase 3

Participant	Qualification	Research Experience	Teaching experience	Designation
Reviewer 1	PhD	6 years	18 years	Acting Head
Reviewer 2	PhD	5 years	20 years	Senior Lecturer
Reviewer 3	Masters	5 years	26 years	Senior Lecturer
Reviewer 4	Masters	2 years	30 years	Senior Lecturer

This process helped me receive some useful feedback and suggestions to improve the interview protocol. They all agreed that the majority of the interview questions were key questions, and they appeared between the introductory question and the closing question. Moreover, they all approved that the interview protocol is reflective and allows interviewees to share and comment. They all believed that the scripts in the interview protocol facilitate a smooth transition from topic to topic or between questions, and the overall organization promotes the flow of the conversation.

Moreover, the reviewers, in general, agreed that the interview protocol is well written with no spelling errors and mostly contains open-ended questions asked one at a time in a non-judgmental manner. However, there was one instance where the feedback was given to separate one of the questions with the phrase 'daily life or work' as the answer might be focused either on daily life or work, whereas the research question mainly focused on the

workplace. Hence, this question was revised to focus more on work and eliminate daily life. The question is then rephrased to '*What are some useful areas you need when learning speaking skills for your career?*'. Additionally, all the reviewers agreed that the interview protocol is of appropriate length and that all the given questions are useful, concise, devoid of academic language, and easy to understand.

In general, the interview protocol was refined based on the feedback and suggestions received from the reviewers. This includes rephrasing interview questions for clarity, adding details to some questions, and modifying the linguistic composition of some questions.

3.1.4 Phase 4: Piloting the interview protocol

The first three phases allowed to develop and refine the interview protocol for clarity, simplicity, and answerability [5]. In the last phase, it is pilot-tested for further refinement. The aim of a pilot test is to test the appropriateness of the questions to provide researchers with suggestions to improve interview guides [9]. It also helps to make sure the interview process is smooth, its structure is suitable for the study [10] and gives the opportunity to clarify questions to improve the interview protocol [11]. In qualitative research literature, a pilot test is commonly called a preliminary study. However, as this paper follows the IPR Framework, it uses the term pilot test to adhere to the terms given in the framework.

This phase entails conducting the interview in a context as real as the actual one. Participants for this phase have similar characteristics as the actual participants. These participants were contacted through a gatekeeper working in their workplace. Later, they were approached via a phone call to explain the process and to ensure their willingness to participate. They all completed a consent form upon agreement. The pilot interviews were arranged at a time and place convenient for them, ensuring it was a calm place for interviews to be conducted. All the interviews were audio recorded.

Table 3. Information of participants in Phase 4

Participant	Qualification	Designation	Workplace	Work Experience
Participant 1	O' Level	Receptionist	Guesthouse	2 years
Participant 2	O' Level	Front Office Agent	Resort	1 year
Participant 3	Diploma	Front Office Agent	Resort	2 years

The interviews were conducted by one of the authors, and notes were taken during the interviews to record the interviewer's experience and areas to improve the interview protocol. The interviews took place in the participant's workplace and lasted for a period of 40-50 minutes. They all had their duty at work, and a time slot was allocated for the interviews with their managers' permission. To begin with, the interviewer gave a self-introduction, obtained consent, and explained the ethical considerations, including confidentiality of information. The interviewer set up the audio recording and tested it before starting the interview. According to [1], interviews may include some time to talk to put the participants at ease, and this time could be used to give instructions and to complete paperwork. After this stage, the interviews began. The interview protocol was followed as closely as possible to ensure the interview protocol was an effective instrument to collect data to answer the research questions. Notes and feedback were noted down, identifying areas of improvement of the scripts, key questions, follow-up, and probing questions, and the organization of questions in order to further refine the questions.

The pilot testing revealed very useful findings to refine the interview protocol to finalize it. A key finding of this phase was that the respondents had some difficulties in expressing

their ideas when they were asked a broad, open-ended question. It was also revealed that their answers to some open-ended questions were limited. However, they expanded upon asking follow-up questions or probes. For example, the board question *'What are the useful areas you need when learning speaking skills for your career?'* did not generate much information from the participants as the answers were basically on the importance of speaking to the guests in the English language to serve them. Thus, probing questions were asked to elicit more information to understand the most useful areas for them. These questions include clarifying questions like *'What kind of tasks at work require you to use English speaking skills?'* and elaborating questions like *'What do these tasks involve?'* Additional probing questions were asked to generate more information and to continue the conversation. It is also noted that these additional questions added by considering the participants' initial responses, their body language, and the context of their work helped in receiving more appropriate information to analyze their needs, hence answering the research question. Additionally, some questions required some explanation for them to understand. For example, when they were asked, *'How do you prefer to learn English speaking skills?'* it was observed that they were confused or did not have a specific answer to it. However, with some probes and explanations, they were able to reveal their preferences in terms of learning methods.

It was also discovered that restriction and hesitance were not due to the style of the question, as some of the open-ended questions received very informative responses, too. They all responded well on the topic of their current work and the use of English language speaking skills, but more effort was needed to elicit informative responses on the topics of learning and their preferences.

Based on the findings from the pilot interview, the interview questions were reorganized, additional probing questions and follow-up questions were added, and questions that elicited similar answers were discarded. Moreover, slight changes to scripts were made, and some key questions were rephrased to make them more focused to elicit answers in the interest of the research question. Also, some linguistic changes were brought so that the questions were well comprehended by the respondents. Common conversation phrases used in the pilot interviews were picked from the transcripts and adopted into the final protocol to enhance a more natural conversation.

Overall, this process granted an opportunity to get a realistic sense of the interview and see how long the interview takes, if the participants were able to understand the questions [5], and to see if the information received really answered the research questions.

4 Discussion

Developing and refining interview protocols are two important steps in ensuring the credibility of the interview data, thus enhancing the trustworthiness of the qualitative research. Nevertheless, the literature does not give one best-fit framework that suits all research contexts, leaving it to the researchers to choose an effective one to develop and refine the instrument based on their research aim and the research context. However, what is significant is that applying a well-defined and guided framework helps in scrutinizing the process. The IPR framework is an effective framework to assist the process of developing and refining interview protocols to create a reliable and credible research instrument. It helps to ensure the interview questions are well rooted in the research questions and that there is no information gap in answering the research questions. Moreover, its focus on inquiry-based conversation helps in creating a conversation rather than simply a session of questions and answers. With due importance to all phases of the framework, the last two were especially important in refining the protocol towards the final one. The reviewers' feedback is immensely valuable in refining the interview questions for clarity, structure, length, and

comprehension. The pilot testing helps to receive further feedback through the practical application of the protocol in a real-life context. This is useful for further refining the interview questions for better understanding, adding and removing questions to improve relevance, reorganizing them to enhance the flow, changing wordings for better comprehension, and modifying the scripts for more natural conversations.

It is essential to understand that the foundation of interview questions is laid on the purpose of the research. The structure of the interview questions largely depends on the expertise and knowledge of the researcher [1] and needs careful planning about what to ask and how to ask [12]. As cited by [10], it is important to be careful of the objective of the research and the nature of the study while crafting interview questions. They also assert that a rigorous understanding of the purpose of the research helps in creating interview questions grounded on previous literature and the nature of the problem being studied. Hence, aligning the interview questions and research questions is an important step to collect relevant data to answer the research questions.

It is also important that the interview questions are of different types to collect the most information from the respondents. Literature on conducting interviews shows the effectiveness of open-ended questions. It is important that interview questions are broad enough so that the responses are not limited or biased [1]. Moreover, these questions must be comprehensive enough [13]. It is also evident that having a variety of questions helps in generating information from the respondents and promotes the flow of conversations. Follow-up questions and probing questions are especially helpful in clarifying, elaborating, getting examples, or helping the respondents to recall and continue the conversation. Probing questions are useful in persuading respondents to give more information, and follow-up questions should be based on the responses received for the pre-constructed questions [10]. The importance of making the interview an ordinary conversation that elicits answers to the questions is apparent. It helps interviewees to be comfortable, recall their experience, and share their understanding and experience with the interviewer. An inquiry-based conversation [5] is an important part of a good interview protocol. Additionally, receiving feedback from reviewers assists in improving clarity, simplicity, and comprehension of the interview protocol. It also helps ensure that the structure of the interview protocol is right, that interview questions are relevant, well-written, and coherent, and that it promotes conversation. Amendments made to the interview protocol based on the feedback from the reviewers help in the piloting phase, too. Piloting interviews is a significant step for the reliability of the interview guides to obtain quality data from interviews [5]. It is also understood that pilot testing of the interview protocols helps determine the pace of the interview and recognize the potential probing questions and follow-up questions as it involves a real-time conversation, and participants' responses are considered, unlike the question development stage.

The findings of this paper's pilot testing align with the findings of [13], who applied the IPR framework to fine-tune a preconstructed interview protocol. They found that the participants gave limited responses to open-ended questions and concluded to include close-ended questions. They highlight the importance of careful application of close-ended questions after information recall from the open-ended question [13], favoring the common practice of using open-ended questions. From the pilot test of this study, it is understood that while open-ended questions are useful in the recall process, probing questions and follow-up questions are essential in collecting rich data. This is a common practice in qualitative research.

Apart from applying the IPR Framework, it is important to follow the practices of qualitative research to make sure that the final interview protocol is well constructed and ensures the credibility of the research. Key measures like informing the participants about the research and making them aware of the purpose of the study are essential steps to elicit

relevant information from them. Moreover, confirming the confidentiality of information and informing them about ethical considerations and their rights as participants aid in getting quality data as they build confidence in respondents to share their experiences and knowledge. Additional steps to ensure the rigor of qualitative research, like member checking of participants' responses, should be followed to achieve the trustworthiness of the research.

5 Conclusion

The IPR Framework is a very useful framework that gives step-by-step guidance to develop and refine interview protocols to ensure the trustworthiness of qualitative research. The iterative process and the framework's consideration of research questions, inquiry-based conversation, reviewer feedback, and pilot testing help to construct credible interview questions to collect rich data through conversations to answer research questions. The first phase ensures research questions and interview questions are aligned. This enhances the rigor of the research and aids in achieving the aim of the study by collecting data that directly relates to the research questions. The second phase allows building an inquiry-based conversation, which helps the interviewer engage in a conversation with the interviewee rather than ask questions only. This phase considers conversation norms in the context, thus creating a more comfortable environment and generating authentic responses from the respondents. The next phase assists in getting feedback on the content and linguistic components of the interview questions. It results in well-organized, well-worded questions relevant to the research. The last phase gives an opportunity to simulate the interview in a real context, testing the questions and improving them based on the interviewees' experience and responses from the interviewees. This phase helps in understanding the practicality of the interview protocol and allows for the identification of areas for further refinement of the interview protocol to give clear and precise questions. Overall, the IPR framework helps create and refine interview questions to collect rich data from the interviewees and enhance the trustworthiness of the research.

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