

# Conducting Pilot Study In A Qualitative Inquiry: Learning Some Useful Lessons

<sup>1</sup>Dr. Mahrukh Shakir, <sup>2</sup>Dr. Atteq ur Rahman

1. Assistant Professor of English, Abdul Wali Khan University, Mardan ([mahrukh@awkum.edu.pk](mailto:mahrukh@awkum.edu.pk))
2. Assistant Professor of English, Islamia College Peshawar ([atteq\\_h@hotmail.com](mailto:atteq_h@hotmail.com))

## **Abstract**

Pilot studies play a vital role in any research, but are often underrepresented. A well executed pilot study assures methodological rigour, which may result in high quality research and scientifically sound work that may be published and may benefit the relevant community. In addition to giving researchers the chance to build and/or improve the skills required before beginning the larger investigation, the lessons learnt from a pilot study can help researchers in the design and conduct of their main study. Given the significance and contribution of pilot study to the main study, this article, based on the researchers MA and PhD research, presents an overview of pilot studies, which includes; why they are conducted, what to consider when conducting it and the authors' experiences and lessons learnt from piloting, to the benefit of the main study. Such information is expected to be helpful for the researchers not quite familiar with the pilot study and its usefulness for the main study.

## **Introduction**

Pilot studies play a crucial role in research. A pilot or preliminary study is a small-scale study or a pretest for a particular research instrument such as an interview guide or a questionnaire. Pilot studies can be conducted out in quantitative, qualitative, and mixed methods research. A pilot study evaluates the effectiveness of the methods for gathering and analysing data. It prepares the researcher for the unanticipated issues prior to entering the field. A pilot study also offers the chance for participants to become familiar with the researcher and the research process. It is believed that carrying out a pilot study improves the validity and methodological rigour of a qualitative investigation. A pilot study assists in identifying and resolving ethical and practical issues that could jeopardize the main study or violate participants' human rights. Therefore, a qualitative researcher may have exceptional opportunity to develop their research abilities and

practice qualitative inquiry by reflection on the lessons learnt from a pilot study, which will afterwards increase the credibility of their work. (Janghorban et al., 2013)

## **The Process of Piloting: Participants, Procedure, Outcome**

As mentioned above, in this paper, the information regarding pilot study has been taken from the researcher's MA and PhD researches. The main research approach undertaken during the MA study was mixed method, using questionnaire and follow-up interviews as the main methods. However, the PhD research employed purely qualitative research approach, using interviews and classroom observations. Before collecting data, piloting was undertaken to test and judge the effectiveness of the instruments (questionnaires in case of the MA research and interview guide in case of the PhD research) and the data collection procedure. The pilot study

helped in; developing and testing the adequacy of the research instruments, assessing whether the research instrument has useable results, whether the technique of the study was effective, whether the questionnaire was appropriate to the context, and detecting and resolving any difficulties that could arise during its use. Thus, the main aims of piloting in both the studies were to test the questionnaire and interview questions for their clarity and relevance for the main/actual study, to also get a better sense of the classroom observations, and to identify and prepare for any problems beforehand, thus piloting contributed to the study's trustworthiness.

#### Piloting in MA research

In case of the MA research, the participants consist of a set of ten volunteer students (six males and five females). These students belonging to the same university and sharing almost similar characteristics with the target sample (Teijlingen van & Hundley, 2001) completed the questionnaires designed for the main study, containing 42 questions. The pilot questionnaire was the same as that used in the main study but with 43 questions and an additional question asking students' perceptions/opinions and attitudes towards the scale, in order to make the necessary changes in the instrument to be used in the main study. Reliability for the instrument was tested in order to adjust the scale for data collection in the main study. The scale initially had an alpha reliability of 0.65.

Participants were asked to submit, in addition to their answers, their interpretation of each item's meaning in order to advance the clarity of the questions. They were requested to comment on the meaning, connotation and phrasing of questions. Pilot participants were invited to ask questions in case any item was unclear, and were also asked for their feedback about the procedures being used.

The pilot questionnaires were followed by short interviews with the pilot-participants. This enabled the researcher to develop accuracy and consistency in the instrument. Mostly participants showed their contentment with the questionnaire and questions, though adding few suggestions and some insights regarding its design and items. This prompted a little modification of the questionnaire, such as, removing redundant, irrelevant items from the questionnaire and some minor language related adjustments (for making language simple and comprehensible). This helped in creating more exhaustive, unambiguous and discrete items, hence improving the instrument validity (Cohen, Manion, & Morrison, 2000). The questionnaire was subsequently revised in light of the feedback obtained from the pilot study before the actual administration. Based on the pilot testing of questionnaire, 38 items of the questionnaire were finalized and 5 eliminated from the initial instrument as they contributed negatively to the scale internal consistency (their item-test correlation was below 0.57). Next, the summated Cronbach alpha reliability for the revised instrument was calculated which turned out to be 0.71.

#### Piloting in PhD research

In case of the PhD research, the pilot participants were six volunteer teachers, who taught English and were selected on the basis of convenience, access and geographical proximity. A friend living locally helped arrange access to the pilot schools and participants. Regarding their profile and number, they were chosen on the basis of; firstly, the time allocated to the pilot study; secondly, a belief that six teachers would suffice to highlight any possible flaws in the research design and/or methods, and thirdly, that these teachers share, to a great extent, almost similar characteristics with the target sample (Teijlingen van & Hundley, 2001). These teachers were interviewed (1 hr each) and their classes observed

(3 classes each; each class about 40 mins) at a time and place convenient to the participants.

Initially, the first three interviews from three participants were taken before the start of their class observation but later on, this sequence was changed to the contrary, on account of few difficulties, such as, examination in most of the schools, holidays due to festivities, the ignorance or unfamiliarity of the school community about research process and what it involves, VIP's (very important person) visit and security concerns. The main study afterwards then followed the same design as the amended order in the pilot study where the researcher first observed the first one or two classes of each participant, followed by conducting the interviews which were further followed by the remaining one or two class observations of each participant.

The pilot study spanned almost three weeks. Participants were interviewed using the interview guide prepared for the main study. In addition to answering the questions, they were encouraged to ask about or clear any ambiguity related to the questions. Furthermore, in order to advance the clarity of the questions, they were also requested to comment on their meaning, connotation and phrasing and were also invited to provide suggestions and feedback about the procedures and methods being used. Similarly, during the classroom observations, different points were paid thorough attention and these were taken as a great opportunity to practice both the field work and the art of collecting data.

### **Experience of Piloting**

The pilot data/study proved to be useful in providing insights into the main issues being investigated and informed the final research design with fresh empirical observations. Methodologically, it provided information regarding relevant interview questions, which also involved some changes (such as words,

phrases, sequence) in the interview questions after the pilot study, and the logistics of the field investigation, for example, where to sit and do the recording from. The required adjustments, though not many, were made, ultimately establishing a satisfactory procedure for the main data collection. The pilot study helped in deciding whether the methods for the data collection were effective in terms of answering the research questions. It also helped in, detecting and resolving any difficulties that arose during their use and, refining the interview guide. Briefly speaking, the pilot study guided the main study as follows:

Firstly, having been taught in mostly quite well-resourced private teaching contexts (e.g. having more resources, regular teacher development opportunities/workshops, more individualized attention to students, regular formative assessments, good parent-teacher relationship and regular contact between them, system of check and balance for the teachers etc.), the pilot study helped me to gain familiarity with the resource-poor school (the main research site) teaching context under investigation. It helped me to develop an overall idea regarding what aspects of the teachers, teaching and the teaching context could be useful to observe and to probe deeply to achieve my research aims, for example, teachers working with limited resources, and too many students; teacher-student interaction; teachers professional development opportunities.

Secondly, the pilot study guided the sequence of data collection. Initially, as I mentioned above, I started with the participant-teachers' interviews followed by their class room observations. However, half way through, I realized that it would be more beneficial to invert this sequence to identify opportunities/areas for discussion in the post-observation interviews relevant to research questions/focus, on the basis of observations. In this way, the classroom observations proved helpful to map out the

various types of observed activities and the roles performed by the observed participant-teachers. These were helpful in informing the following semi-structured interviews with various topics and issues relevant to the observed activities.

Thirdly, carrying out interviews with the participants (teachers) revealed that some issues required attention in the main study. For example, arranging and conducting interviews were time consuming, and thus needed careful preparation. It was difficult to arrange interviews with participants having different commitments and timetables at a suitable time and place. However, due to the pilot study, the researcher learnt to identify the free time slots of the participants, such as, their lunch break. It was also learnt to side-line own less important preoccupations and to find ways of being more responsive to the participants. Moreover, it was during the pilot study that the researcher decided to add 2 more participants to the original 6 to make allowances for any unforeseen circumstances, for example, participants withdrawing from the study (Dörnyei's, 2007). Also, it became clear during the interviews that the participants differed in the ways they interacted with the interview questions. For example, being repetitive, going off the topic, losing focus, and talking about their personal concerns and interests, were few of the issues that were experienced. Thus, it was learnt how to maintain some balance between being flexible and managing time effectively. This could be observed in the actual interview questions where the researcher used different prompts to manage this situation, one of the lessons learnt in the pilot study.

Fourthly, the pilot study guided the researcher in how to ask questions that would elicit fullest responses from the participants. For instance, on two different occasions when the researcher asked the participants an open-ended question, typical of qualitative interviews, i.e.: "Tell me about your English language teaching

experiences", the participants asked, "Tell me exactly what you want to know about my teaching". At such a point, it became clear that the researcher would have to be slightly specific in questions as the participants may not be used to being asked questions in such a highly unstructured way, possibly on account of unfamiliarity with the research culture as the researcher experienced a somewhat defensive attitude by teachers especially in the beginning, possibly due to the participants not being used to researchers or anyone observing their classes. Therefore, slightly specific questions (though still open-ended) were asked from the participants from then on.

Fifthly, the pilot study provided confidence in accessing the research participants and establishing rapport with them, to earn their trust and to put them at ease so that the researcher could ensure maximum response from them. For example, it highlighted the importance of having a few informal chats with the participants to allow them to know the researcher better and establish their credibility before inviting them to participate in the study. These factors impacted the main study in that they actually helped in building trust with the main participants as well as to sit in and record their classes, especially the female participant-teachers who were more reluctant for video recordings to take place, due to an overall conservative culture of the region.

Lastly, in the case of observations, the pilot provided sufficient practise in taking field notes i.e. what, how and how much to note down as well as an opportunity to test the audio and video recorders. It brought out the need for carrying spare recorder batteries by the researcher. It guided the researcher where to position their self and the recorder in the class for better recording and to minimize the researcher's impact on classroom activities. That is, to sit at the back or the edge of either side of the class rather than anywhere else. Initially, overwhelmed by both

extremes: what to note down and everything to note down, pilot study helped the researcher to be guided by and refer to their research questions as well as to read through and adopt some framework from the relevant literature for a more focused observation.

### **Conclusion**

The pilot study conducted during the respective research aided in testing and further refining the research instrument as well as the procedure used during actual research. Above all, the pilot study enhanced the confidence as a researcher, an interviewer and an observer. After piloting, the main researches were carried out where the lessons learnt from the pilot studies provided an informed guidance. Based on the experiences, mentioned in this article, it is strongly recommended to the researchers to carry out a pilot study before embarking on the main research for more guidance and thereby more credibility of the research.

### **References**

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