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ASSESSING THE RELIABILITY AND VALIDITY OF QUALITATIVE INTERVIEWS: A PILOT STUDY ON INTERNATIONAL STUDENTS' EXPERIENCES IN A SMALL LIBERAL ART COLLEGE IN THE USA

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Abstract
This qualitative paper explores the use of qualitative interviews within social science research, emphasizing the critical need for data validity and reliability, challenges that are particularly pronounced for researchers new to conducting structured interviews. Conducting a pilot test is a critical step in refining the qualitative data collection process, offering researchers an opportunity to enhance the actual interview based on preliminary findings. This paper outlines the methodology employed in a pilot study aimed at verifying the validity of qualitative data concerning the experiences of international students in a small liberal art college in the USA. Additionally, the paper highlights the significance of pilot testing the interview framework. A semi-structured interview format was chosen for the pilot, conducted with undergraduate students. The outcomes from this pilot test indicate that the chosen interview instrument is effective in capturing the nuanced aspects of the students' experiences.

Keywords: Qualitative Analysis, Pilot study, Semi-structured interview, Validity, Reliability, International students in the USA.

Introduction
The qualitative approach is particularly effective in exploring the subjective experiences, opinions, and beliefs of participants, allowing for the extraction of detailed explanations beyond the reach of quantitative methodologies (Percy, et al., 2015). This method enables the examination of diverse perspectives, as each participant brings unique views and beliefs to the study. The choice of a qualitative framework for this research was driven by its aptness in addressing the 'what', 'why', and 'how' concerning the experiences of undergraduates in a small liberal arts college in the USA. Regarded as the research's structural foundation, the research design serves to directly address the study's objectives and questions (Cooper & Schindler, 2014). Furthermore, the selection of a qualitative methodology for this investigation was predicated on its intrinsic ability to afford the investigator a nuanced comprehension of the participant cohort. This approach is underpinned by an emphasis on elucidating the subjective significances and lived experiences ascribed by individuals (Lodico et al., 2010; Rumrill et al., 2011; Yin, 2009).

The credibility and dependability of qualitative research hinge significantly on the validity and reliability of its data. A measurement tool gains credibility if it successfully meets the criteria for validity and reliability (Dikko, 2016). Validity pertains to the trustworthiness of the research and its effectiveness in assessing the intended subject matter (Zohrabi, 2013). Consequently, the integrity of the interview tool is crucial, as the research findings rely heavily on the data derived from it. Reliability, on the other hand, is challenged by the subjective and narrative nature of the data, which can complicate the analysis. Nonetheless, a study is deemed reliable when the interview data are consistent and unbiased, accurately reflecting the intended concepts (Sekaran & Bougie, 2003). Thus, ensuring both validity and reliability is paramount in this current manuscript.

Patton (1990) emphasized that the quality of qualitative data hinges largely on the researcher, who is expected to take a central role during interviews. The researcher's responsibilities include clarifying questions for interviewees and effectively gathering necessary data. Dikko (2016) further asserts that researchers must develop a clear methodological framework, ensuring that concepts are measurable, and the selected methods are capable of accurately capturing the required information.

Pilot studies are essential in qualitative research as they provide valuable insights into various aspects of research design and implementation. These studies help evaluate the feasibility of recruitment, randomization, retention, assessment procedures, new methods, and the implementation of novel interventions (Leon et al., 2011). Despite their significance, pilot studies in qualitative research are often underreported, which limits the discussion and dissemination of their findings (Doody & Doody, 2015). Thus, this paper aims to report its pilot

test outcomes to establish the validity and reliability of research instruments, such as semi-structured interview questions and demographic questionnaires, which are fundamental in conducting qualitative research (Aung et al., 2021). This study incorporates a pilot test that serves as a crucial preliminary step in research to aim at validating the research tools. Defined as an initial trial of a research instrument, a pilot test precedes the main investigation, serving to refine methodologies and ensure their efficacy (Teijlingen & Hundley, 2001). The literature underscores the pilot test's role in early identification and rectification of potential methodological flaws, thereby enhancing the research's integrity and value (Dikko, 2016; Watson et al., 2007; van Wijk & Harrison, 2013).

Additionally, pilot studies can not only help researchers to enhance the rigor and trustworthiness of research findings but also navigate the complexities of data collection, ethnography, and reflexivity, ensuring a more robust and well-prepared approach before engaging in full-scale research activities (Sampson, 2004). In this context, the research team has chosen to employ semi-structured interviews, striking a balance between the rigidity of structured interviews and the openness of unstructured formats along with a demographic questionnaire. This approach allows for adaptable questioning and in-depth exploration of participants' responses, facilitating the emergence of new inquiries as dictated by the flow of the dialogue.

Background and Rationale of the Study

The increasing globalization of higher education has led to a growing number of international students enrolling in institutions around the world. Small liberal arts colleges in the USA have seen a rise in the enrollment of international undergraduate students (O'Connor & Fernandez, 2018). This trend has sparked interest in understanding the experiences of these students as they navigate the challenges of adapting to a new cultural and educational environment. This qualitative study aims to explore the cross-cultural adaptations of international undergraduate students in a small liberal art college, using a semi-structured interview approach and applying grounded theory to analyze the data.

This section will discuss the existing research on cross-cultural experiences and adaptation process among international students. It will draw on Luo and Zhang's (2021) research, which summarizes predictors of cross-cultural adaptation among international students, and Zhang and Li's (2022) study, which explores the effects of international students' initial cross-cultural transition. Additionally, it will incorporate Schwartz et al.'s (2010) work, which emphasizes the need for an expanded operationalization of acculturation to address the "immigrant paradox."

The growing presence of international undergraduate students in small liberal arts colleges necessitates an understanding of their experiences and challenges in adapting to a new cultural and educational environment. Recent literature has highlighted the importance of qualitative research in uncovering the nuanced experiences of international students (Adeoye-Olatunde & Olenik, 2021). Qualitative research is an especially useful approach in understanding the subjective experiences of individuals, as this approach emphasizes careful listening and respect for individuals' unique voices and interpretations of life experiences (Ponterotto, 2010). This approach is also well suited to international students' communities in which storytelling is often an important way of discussing life experiences.

A structured interview protocol, including a comprehensive set of rules, guidelines, and questions, is developed in alignment with the research goals prior to conducting the interviews for the pilot test. Creating a well-defined interview guide is crucial for enabling the pilot study researchers to maintain control over the interview's direction throughout the session.

Methods
Procedure of the Study
For optimal effectiveness in one-on-one interview sessions, selecting a setting that offers comfort and ease to participants is crucial (Jacob & Furgerson, 2012). The environment should not only facilitate comfort but also ensure minimal background noise to guarantee the clarity of recorded data. Given these considerations, the interviews for this study were carried out in a psychology lab, where such conditions were met.

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Participant Selection

The participants for this study were selected using purposive sampling. Criteria for selection include being international undergraduate students currently enrolled in the small liberal arts Catholic University. Efforts were made to ensure diversity among participants based on nationality, cultural background, genders, and length of time spent at the institution.

Data Collection Methods

Demographic Questionnaire: Alongside the interviews, a demographic questionnaire was administered to gather basic information such as age, nationality, cultural background, academic program, and length of stay at the college. This helped in contextualizing the experiences shared during the interviews.

Semi-Structured Interviews: Participants engaged in semi-structured interviews, allowing for open-ended discussions about their cross-cultural experiences, challenges, and adaptations. Interviews were audio-recorded with participants' consent to ensure accuracy in capturing their narratives. These interviews provided a platform for the participants to narrate their experiences, perceptions, and challenges related to cross-cultural adaptation.

The objective behind designing the pilot interview questions was to delve deeper into specific areas: cross-cultural adaptation (5 primary questions), challenges, adjustments, coping mechanism (2 primary questions), perceptions on cross-cultural experiences (2 primary questions), influence on personal development (2 primary questions), along with participants' recommendation and insights (2 primary questions). Following the formulation of these questions, they were accompanied by a cover letter detailing the study's significance and a feedback form, and then presented to a panel of experts for a content review. Based on the feedback and suggestions from these experts, modifications were made to the questions, focusing on clarity and linguistic precision. This ensured that any ambiguities were addressed, allowing for clearer communication with interviewees and the extraction of more detailed information relevant to the research. With the use of open-ended questions, a total of 15 questions were constructed to facilitate the gathering of in-depth insights from the study participants.

Pilot Study Methodology

To execute the pilot phase of the semi-structured interviews, substantial effort was directed towards key aspects such as participant selection, setting, research tools, and the interview process, which encompasses three stages: pre-interview, during the interview, and post-interview.

Participant Selection

While qualitative research does not prescribe a fixed number of participants, the selection is influenced by factors including the study's objectives, the relevance and credibility of the information, time and resource constraints, and participant availability and willingness (Patton, 1990). The primary factor, however, is whether the data collection reaches a point of saturation. For this pilot study, three international students currently enrolled in the Catholic University were chosen. This selection, guided by purposive sampling and the study's goals, aimed to provide a focused understanding of the subject. The demographic details of these participants are outlined in Table 1.

Table 1 Demographics of Participants.

Participant	Pseudonym Name	Age	Gender	Country of Birth	Academic Status	Native Language(s)	Length of Stay in the Host Country
1.	Sarah	23	Female	Turkey	Junior	Turkish	3
2.	Mary	22	Female	Germany	Senior	German	4
3.	Laila	22	Female	Turkey	Junior	Turkish	3

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The interview methodology is segmented into three phases: pre-interview, during interview, post-interview overview, and post interview phase. Here's a breakdown of the semi-structured interview approach used in this research:

Pre-Interview Phase
Prior to initiating the interviews, the researcher selects the pilot test participants and determines the interview framework. Subsequently, questions tailored to the study's goals are crafted. Arrangements for the interview, including scheduling the date, time, and location, were made with the participants by the research team.

During Interview Phase
The researcher initially set up the seating arrangement and opened the session with a brief overview, outlining the interview's flow from start to finish, including data collection and session wrap-up. A thoughtful seating layout helps interviewees relax and feel comfortable. The session began with casual exchanges, such as greetings and self-introductions, complemented by positive non-verbal cues like firm handshakes, smiles, and direct eye contact, setting a friendly tone. Establishing a warm rapport was crucial for facilitating open and honest dialogue (Jacob & Furgerson, 2012), fostering trust between the researcher and participants. The researcher then outlined the study's goals, duration, and assured interviewee confidentiality and consent through document review and signature. Additionally, the researcher's professional attire and demeanor further reinforced their credibility. Following a structured interview guide and employing probing techniques, the researcher captured detailed insights through audio recording and note-taking. Interviews were efficiently conducted within 15-25 minutes. All interviews were done in English; therefore, there was no need to acquire a translator as well as a back-up translator for the current pilot study. In conclusion, the researcher summarized key points, invited final comments or questions, and inquired if participants had any additional thoughts or insights to share. Expressing gratitude and offering tokens of appreciation to the three participants marked the session's end.

Post Interview Phase
The responses were recorded word-for-word, categorized, and organized by themes relevant to the study goals by using an audio recorder. Given the participants' limited language skills, the research assistants repeated questions if the participants had difficulty understanding the interview questions while providing them a printed list of interview questions. Additionally, to enhance clarity and effectiveness, the interview questions were meticulously adjusted and refined in preparation for conducting future interviews by the research team.

Results
Insights from Preliminary Interviews
The preliminary interviews served as a crucial tool for refining the interview framework, allowing the researchers to fine-tune certain queries for enhanced clarity. These initial interviews highlighted several key areas for improvement. Specifically, the study underwent a few minor revisions based on the findings from these interviews. The most notable change involved the expansion of questions related to the perceptions and personal development on cross-cultural experiences in the small liberal art college in the USA. The initial set of questions proved inadequate for achieving the study's goals, leading to an increase from three to six key questions in this area. These additional questions covered aspects such as the participants' benefits of interacting with diverse students' populations, personal growth and development through their cross-cultural experiences. This expansion was critical to enriching the data quality for the subsequent interviews, prompting the addition of these questions to gather more comprehensive and insightful responses from the subjects.

Secondly, adjustments were made to the repeated sounded-interview questions. The questions were refined for clarity and precision, ensuring participants could easily understand and respond during interviews. For example, a question regarding the use of learning something valuable from cross-cultural experiences and influencing cross-cultural interaction led to repetitions among participants. To address this, the question was modified to explicitly inquire about the use of both face-to-face and online resources. This change was necessary as participants demonstrated diverse understandings and rich views on the cross-cultural experiences and adaptation process as international undergraduate students in the USA. Additionally, certain questions were reworded, and new, targeted follow-up questions were introduced based on insights from a preliminary test. For instance, the initial question about initial expectations and perceptions was expanded to elicit detailed responses

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on providing solid examples for the participants' clarity of understanding the terms. Similarly, an enhancement was made to another question to gain deeper insights into how participants respond to the question of whether they participate in cultural/social activities in the college, moving beyond simple 'Yes' or 'No' answers to encourage more informative responses.

In the final analysis, the research team recognized a need for clearer initial instructions to participants regarding their involvement criteria, leading to immediate revisions to enhance comprehension of the interview process. Additionally, the pilot test highlighted the importance of capturing participants' responses with clarity, prompting the use of highly used and well-organized transcription tools to transcript audio recording devices to ensure transcription accuracy. Attention was also given to the length of each interview, with the pilot confirming that the average duration of 35-40 minutes per session aligns well with the established guidelines for conducting interviews.

Conclusions

In this initial trial, the aim was to test the semi-structured interview format planned for future comprehensive studies. The trial's scope was limited due to the small participant group, which suggests the data might not fully represent the broader population. However, the process adhered to established qualitative research protocols, covering pre, during, and post-interview stages, ensuring its methodological soundness. The findings from this trial are promising for future in-depth interviews. A significant advantage of this trial was the opportunity for researchers to refine their interviewing skills across the interview's three phases. This experience is valuable and is intended to serve as a practical reference for others in similar research areas.

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