

# Documenting Methodological Procedures in a Qualitative Pilot Study: Exploring the Journey of Women Reaching Leadership Positions in Academia

Joanna Claire Miranda, Kalei Joethi Sahadevan, Qurat-ul Ain Innayatullah, Rezwana Karim Khan

Faculty of Business & Management,  
Quest International University  
No.227, Jalan Raja Permaisuri Bainun,  
30250 Ipoh, Perak, Malaysia

\*Corresponding Author's email: [Joanna.claire@qiu.edu.my](mailto:Joanna.claire@qiu.edu.my)  
<https://doi.org/10.61211/mjqr090202>

## Abstract

Pilot studies are crucial for any research. While publishing the results of pilot studies in quantitative research is common, it is less common in qualitative research. This pilot study precedes the main research on the differences in perception between men and women deans on how they perceive the key success factors for women to be leaders in academia. In this pilot study, male and female deans were used as participants, consistent with the main research. Besides that, the aim was to contribute towards increased methodological knowledge as well as awareness of conducting pilot studies in qualitative research. Furthermore, in qualitative research, pilot studies are important to show the trustworthiness of the qualitative research. In determining trustworthiness, researcher triangulation is an important aspect of qualitative research to assess concerns on rigour such as reliability and credibility. The data was collected through in-depth semi-structured interviews via Google Meet, with one male and one female dean, as the main research focused on exploring perceptions towards the leadership journey of female leaders in academia. This study contributed to increasing the trustworthiness of the main study. The pilot study aided in advancing the main research and helped researchers update their coding and interview probing skills. There were some modifications made to the research instrument as the researchers found that the number of questions needed to be reduced in order to get in-depth responses from the participants within the stipulated time. Moreover, some modifications were made to the language of the interview to enhance clarity. The documentation of the experiences of the qualitative research methodology not only helped researchers of this study but also can be used as a guide for researchers who intend to pursue the qualitative studies.

**Keywords:** interview questions, methodology, pilot study, qualitative research

## Article Info:

Received 19 Sept 2023

Accepted 31 Oct 2023

Published 30 November 2023

## INTRODUCTION

A pilot study is a smaller version of the planned research that tests data collection instruments and refines the methodology (Baker, 1994; Aziz & Khan, 2020). It is a preliminary test of a research tool before the actual study (Majid et al., 2017; Shakir & Rahman, 2022). It helps detect potential flaws at the early stage of research, identifies areas requiring adjustments, and adds value and credibility to the research (Voge & Draper-Rodi, 2017; Abd Gani et al., 2020). A pilot study is performed to improve or identify research questions, select the most effective means for pursuing them, and determine the resources and time required to finish the larger version (Olsen, 2018; Crossman, 2019). Before the start of the intended research study and the actual investigation, it is planned intentionally (Lindquist, 1991; Flick, 2018).

Qualitative interviews are essential for researchers to collect in-depth analysis and provide a clearer picture of research findings (Holloway, 1997). However, inexperienced researchers may find it challenging to perform these interviews. Piloting is a vital part of qualitative research (Fraser et al., 2018) for maintaining rigour during interviewing and analysing data.

Literature suggests the importance of pilot studies for research and researcher perspectives (Ismail et al., 2018) provide a roadmap for the main research by identifying expected procedural difficulties (Williams-McBean, 2019) and exploring poorly covered theoretical domains to refine interview questions (Shakir & Rahman, 2022). Piloting helps narrow or broaden the scope of the guiding question, analyse preliminarily collected data, guide necessary resources, and affirm, sharpen, or revise epistemological issues for an in-depth understanding of the phenomenon (Williams-McBean, 2019). From the researcher's standpoint, it helps minimise the risk of problems expected during data collection, analysis, and interpretation, especially for novice qualitative researchers (Teresi et al., 2022).

To meet the purpose of this qualitative study, the researchers need to conduct a semi-structured interview. A structured interview is more formal and limited to a set of questions, while a semi-structured interview is more flexible and permits more extensive follow-up responses. It's neither too rigid nor too open, allowing for new questions based on participant responses (Malmqvist et al., 2019; Aung et al., 2021).

### **Background of Study**

The main research that we are going to conduct is on perceptions of women in leadership. Most countries are aiming to meet Sustainable Development Goal 5 which is to strive to promote gender equality (Merma-Molina et al., 2022; Maheshwari et al., 2023). Governments worldwide are working towards this goal, as it is continuously being proven that successful leaders and leadership are gender-neutral (Knipfer et al., 2017; Slater et al., 2017; United Nations Development Program, Human Development Reports, 2020; Gandhi & Sen, 2021). Academic institutions globally are focusing on inclusion, diversity, and equity in leadership and management, but statistics show that women are still invisible in senior leadership positions in higher education (Bhatti & Ali, 2021; Bush, 2022; Maheshwari et al., 2023). This topic is of global interest, it is crucial to conduct this pilot study to ensure that the main research will achieve its research objectives.

### **METHOD**

A pilot study is a small-scale simulated test run before full-scale research, is undertaken to test the research instrument (Dikko, 2016). As the purpose of the research was to explore the different perceptions of men and women on what the key success factors are for women to be leaders in academia, specifically to be a dean, two (2) participants were approached to be our interviewees. This reason is because the dean is the main leadership and decision-making authority within a faculty.

The deans were approached to request their participation. After they agreed, the information on the research and the consent form was given to them. The research instrument used to collect the data was a semi-structured question. A semi-structured interview is a series of open-ended questions that are used to allow a free flow of sharing (Harvey-Jordan & Long (2001). Because the participants can freely speak and extend their responses, resulting in rich data collection. This process also allows for adjusting and adding new questions if required during the interview session based on the answers given by the participants. Furthermore, Teijlingen and Hundley (2001) noted that interviews used in qualitative research tend to get better after each interview session as the interviewer can improve questions to better achieve the research objectives.

### **Participants**

In terms of sample size for a qualitative research pilot study, Patton (1990) felt that there are no rules for sample size and that it depends on the purpose of the inquiry, what will be suitable, what will be trustworthy, and what can be done within the given time and resources. However, according to Turner (2010), the pilot test participants should have similar criteria to the participants in the major research. In this pilot test study, the researchers used semi-structured interview questions, which are the replica of the data collection tool to be used in the actual research, to establish its reliability and validity.

To be consistent with the future participants that we have identified to interview, a male dean and a female dean were chosen for the pilot study. We requested a short meeting with each of the interviewees separately before the actual interview. The purpose of this short meeting was to inform the participants of the purpose of our research and the procedures that we will follow, which will be repeated for our main research. In the short meeting, we were given their verbal consent to be our participants.

Following that meeting, the participants were given the consent form for the actual research for them to sign. The appointments for interviews were set with each of the participants on different days. Different pairs of researchers were assigned for each person, but we kept one fixed member.

### **Interview Setting**

The interviews were conducted online using Google Meet. Online video conferencing has gained acceptance as it is closest to face-to-face interviews (Irani, 2019). It is also practical in this time of pandemic turned endemic; it is

safe to carry out the research. Furthermore, since we used Google Meet, we were able to record the interview and a transcript was produced automatically. However, the constraint was that the internet connection at times became weak, and we had to reconnect a few times. Also, sometimes the words were incorrectly captured. For proper coding purposes, the participants were asked if the interview could be recorded. They willingly gave their consent, so the interviews were recorded.

Each interview session was conducted by two researchers, but one person remained fixed for both interviews. This was to ensure that the interviews followed the set interview protocol. The participants were briefed on record of the purpose of the research. We went through the details of the research such as how the confidentiality of participants will be maintained. They were also reminded that participation was voluntary.

The interview started with greetings and a reiteration of the purpose of the research. Each researcher introduced herself to the participant. While this was to ensure the consistency of the interview, it was also to introduce the researchers who were not familiar to the participants. The researchers started the interview based on the questions. There were times when additional questions had to be asked for clarity. Each session took 60 minutes. The researchers thanked the participants for their time at the end of each session.

The recording produced a transcript, which was updated for clarity. The next few days, the researchers met to read the transcript and code for categories and themes.

### **Data Collection Tool**

For this study, a semi-structured interview was used as a data collection tool. The semi-structured interview consisted of initially ten open-ended questions to allow participants an in-depth response. However, after the pilot study was conducted, some modifications were made to the questions such as reducing the number of questions and modifying the questions. The interview questions were flexible and the researchers allowed the natural flow of information with some probing. The questions were focused on exploring women's journey to leadership positions. The questions covered information about women's leadership style, the challenges in the course of their leadership positions, and their aspirations and experiences. The questions were adapted and modified from the issues discussed in past literature regarding women's leadership such as gender bias (Madsen & Andrade, 2018), family responsibilities and cultural pressures (Boylan et al., 2019), and glass ceiling (Chisholm-Burns et al., 2017). Please refer to the Appendix for the semi-structured interview questions.

### **Trustworthiness**

Sandelowski (1993) stressed that any attempt to increase reliability in a qualitative study involves a forced or artificial consensus and conformity in the analysis of the data, which is usually at the expense of the validity or meaningfulness of the findings. Based on that point, Sandelowski rejected reliability as a useful measure of quality in qualitative research in favour of trustworthiness. Gunawan (2015) asserts that the rigour and trustworthiness, in qualitative research, are fulfilled through member checking, triangulation, detailed transcription, systematic plan and coding.

We conducted researcher triangulation where detailed transcription and manual coding were done based on the six-step framework of thematic analysis. First, we read and reread the transcriptions followed by identifying patterns based on the keywords, phrases and meanings related to the aim of the research. We then made comparisons between all codes and looked for new codes. Consequently, we searched for themes and sub-themes. Then, all codes were re-examined for any recurring patterns, inconsistencies or dissimilar meanings.

### **DATA ANALYSIS**

The qualitative data that was collected using semi-structured interviews, was coded to identify the themes using an inductive approach. Though the pilot study had one male and one female dean interviewed, it resulted in a total of nine themes and thirty sub-themes. All transcripts were read and reread for clarity and to ensure reliable coding between researchers. Thematic analysis is a form of pattern recognition used in content analysis whereby themes (or codes) that emerge from the data become the categories for analysis in qualitative studies (Roberts et al., 2019). This pilot study aimed to advance the main research. That was fulfilled as the results of the interviews produced the themes that now could be used in the main research. The emerging themes were 1) psychological factors determining the decisions of female academics accepting leadership positions, 2) characteristics of female leadership, 3) Empathy level of female leaders, 4) lack of leadership experience, 5) weak work culture, 6) discouragement towards pursuing leadership positions, 7) proving capabilities to male leadership, 8) qualities of good leadership, and 9) striking work-life balance. These themes were driven by the questions posed in the semi-structured interview. According to Lochmiller (2021), analysing themes is fundamentally a question-driven exercise that depends on clearly articulated lines of inquiry to frame the scholar's interpretation of the data. Some sample themes from the interviews are shown below:

### Psychological Factors Determining the Decisions of Female Academics Accepting Leadership Positions

The psychological factors determining the decisions of female academics in accepting leadership positions was one of the themes that emerged while interpreting the responses to the question, "What challenges do women leaders face in their professional journey?" Regarding these psychological factors, two sub-themes were identified, such as perceiving difficulty and self-doubt. We found two situations that showed this theme.

On account of perceiving difficulty, according to one of the participants,

*"I was only (in) my mid-30 stand and they were all either (in their) 40s, 50s or 60s. One (was) female, and the other two were male. And it was not easy. Yeah, that was my first leadership position, and it was not easy. And of course, in addition to these gender-related reasons, while it was not easy, it was also I don't want to sound so racial, so it was also quite difficult for me. They made things difficult but I always believe that. If you perform, I think the top management will realise will see the difference and, in most cases, you will be rewarded. So, the journey was tough. My first one, the journey was tough but I persevered". (Participant 1)*

The second participant also mentioned that women perceive themselves as not capable enough to hold leadership positions, but in his opinion, he cannot say for sure;

*"...They (women) may say they feel that I (they) can't do it, but I'm not sure, you need to do some study and find out..."(Participant 2)*

Referring to the second sub-theme; self-doubt, the same participant stated that she/he declined an offer of the dean's position because she/he thought she/he was not ready for this position. As stated in the interview

*".... I think I performed and from being a head of the Department for Finance, I was actually offered to be the Dean. When I was just in my maybe late 30s to be the Dean of the Business School, but I did not accept it because I thought I was not ready. I did not have the experience that I needed then. And so, I did not accept it and then I moved on. Yeah, from being the head of the Department of Finance, I didn't accept the dean, but then after two or three years, I accepted the Associate Dean for research. And then I moved out to another university, and again, and then you had a tough time for one year. Yes. I was just a normal lecturer after a year". (Participant 2)*

Another participant also stated that women might undermine their own talent (or self-doubt) ....

*"We need to say that they may feel they can't do this (being a leader), but I'm not sure". (Participant 1)*

### Perceptions about Characteristics of Female Leadership

On the question of barriers to leadership positions faced by women in academia, both participants referred to certain characteristics upheld by women as barriers to effective leadership. The subcategories for this theme emerged were, micromanaging, holding negative emotions, discriminatory attitudes, and a lack of farsightedness or vision. On the account of micro-management, one of the participants stated that.

*"Sometimes I feel women like to micromanage, I feel whom I have worked with, they like to micromanage.....I think micromanaging among women is something very common in us women. Yeah, (they) tend to micromanage, it comes from before micromanaging. It's more from because we are relatively more organized more systematic, and we plant things quite in detail. it's a trade that we have. So, when we become leaders, I feel because I feel sometimes, I'm also a bit like that when we become leaders and many women are also perfectionist. Yeah. Maybe because we are at work. We are at home; we're taking care of family. We care for children, we have (been) multi-tasking...so many women have this trait in them. So when they're out there, I think even when they become leaders, they tend to micromanage, partly because they feel that way". (Participant 2)*

The second participant also reported that women may be unnecessarily meticulous or perfectionists, and it may not jive very well with a leadership role.

*"... Here are some articles you read that for women when they come in this type of a board meeting and this and that they're difficult to get along with, of course, when you talk to men, they say, I don't want to get a female auditor. Absolutely in that type of auditing points, they are trying to make sure everything is ok, but in a general, when you're pointing out and are picky and everything. Then maybe it is difficult in the leadership and leading environment*

*of an organization”*. (Participant 2)

Moving on, further categories of “holding negative emotions, discriminatory attitudes and lack of farsightedness or lack of vision” emerged as one of the participants stated that female staff generally hold vengeance against their coworkers and tend to discriminate;

*“... They don't like it if you highlight issues to them. And if they feel that you are a threat, they'll find ways to bring you down. I've seen all this in my leadership journey”, and yes, men focus on the bigger picture. That's the right word. Yeah”*. (Participant 2)

The rest of the details of the coding of themes are in Appendix 1.

### **Findings and Discussions from the Pilot Test Interviews:**

The pilot interviews provided some opportunities for the researchers to improve the research process, such as revising interview questions, establishing rigour of the coding process, and reflecting on improvements in interview skills. The researchers used an inductive approach in the creation of a codebook, where unexpected themes were developed during the coding process. After reducing, classifying, and synthesising data (O'Connor et al. 2020), the transcribed data were framed according to each relevant code. Once the codes were completed, the codes were then clustered into themes according to research questions.

The pilot test interview provided the researchers with an avenue to improve the interview protocol. Several modifications were made after the pilot test was conducted. The first was to identify the research questions to meet the research aims. The main ten questions were reevaluated and modifications were made to the language used. This added to the clarity to elicit more significant responses. Secondly, it was observed that at times, the answers of the participants provided fewer details, hence, the researchers need to use more probing questions to get more detailed and relevant information and to utilise the one-hour duration of interviews effectively. Thirdly, modifications made were to reduce the number of main questions from ten to eight as the one-hour time frame was not sufficient to gauge in-depth information.

Besides that, the methodology was documented in detail which will help future researchers who want to conduct qualitative research. The methodological process was consistent with the main study. Lastly, the researcher also noted that at times, the interview responses went off tangent. The researchers learned how to navigate them back to the question.

### **Implications of Study**

This pilot study provided an avenue for advancing the main study and allowed the researchers to improve the qualitative methodological procedures involved in the main research. Besides that, the pilot study aided in establishing the trustworthiness of the main study. However, this pilot study is a small-scale study and carries less broad implications. However, it does advocate the use of pilot studies in qualitative studies to improve trustworthiness and rigour. Nevertheless, the qualitative studies are not generalizable, this qualitative pilot study does provide evidence of its usefulness in reporting challenges and improving the methodological procedures.

### **CONCLUSION**

In this pilot study, the aim was to advance the main research, which is consistent in all pilot studies and to contribute towards increased methodological knowledge as well as awareness of conducting pilot studies in qualitative research. As the main research was focused on exploring the leadership journey of females in academia, a semi-structured in-depth interview was used to collect open-ended responses from one female and one male dean via Google Meet. The data was transcribed and initial codes were drawn from the transcribed data and then sub-themes and main themes were inductively derived. By exercising researcher triangulation, the researchers agreed to draw codes, common themes and sub-themes, contributing towards rigour of the research. As a result of this analysis, the researchers were able to draw nine themes.

During the process of data analysis, the researchers improved their coding and thematic analysis skills. While at the stage of coding and data analysis, the researchers realised the importance of probing during interviewing, as some responses needed further in-depth responses. Other than that, the researchers also revised the language of the interview questions to improve clarity. Moreover, the researchers decided to reduce the number of interview questions from an initial ten questions to eight questions. It was because the researchers found that to maintain the time and the depth of the questions, the number of questions was reduced and modify some questions for more significant responses. In conclusion, the pilot study fulfilled the aim of the study by advancing the main research and enhancing the qualitative study skills of the researchers.

Following this pilot study, the researchers will move on to conduct full-scale research on the differences in perception between men and women on the key success factors for women to be leaders in academia. The same protocol will be applied to the main research. The themes will be developed similarly to what was done in this pilot study. The comparisons will be made, and conclusions will be drawn from the main research.

## DECLARATION OF STATEMENT

The lead author confirms that this pilot study provides an honest, accurate, and transparent account of the reported study. No crucial aspects of the study have been omitted, and nor are there any discrepancies from the original plan.

## ACKNOWLEDGEMENT

The authors would like to express their gratitude to the participants and our English department colleagues for assisting us in their capacity.

## CONFLICT OF INTEREST STATEMENT

We declare no conflict of interest. All co-authors have reviewed and approved the manuscript, and there are no financial interests to disclose.

## REFERENCES

- Abalkhail, J. M. (2017). Women and leadership: challenges and opportunities in Saudi higher education. *Career Development International*, Vol. 22(2), pp. 165-183. <https://doi.org/10.1108/CDI-03-2016-0029>
- Abd Gani, N. I., Rathakrishnan, M., & Krishnasamy, H. N. (2020). A pilot test for establishing validity and reliability of qualitative interview in the blended learning English proficiency course. *Journal of Critical Reviews*, Vol. 7(5).
- Alghofaily, L. (2019). Women leadership in higher education in Saudi Arabia. *International Journal of Social Sciences*, Vol. 8(2), pp. 14-32.
- Aung, K. T., Razak, R. A., & Nazry, N. N. M. (2021). Establishing Validity and Reliability of Semi-Structured Interview Questionnaire in Developing Risk Communication Module: A Pilot Study. *Edunesia: Jurnal Ilmiah Pendidikan*, Vol. 2(3), pp. 600- 606.
- Aziz, A., & Khan, N. (2020). The potential uses of pilot study in qualitative research. *Journal of Research and Reviews in Social Sciences Pakistan*, Vol 3 (1), pp. 750-767.
- Baker, T. L. (1994). An assessment of the relationship between service quality and customer satisfaction in the formation of consumers' purchase intentions. *Journal of Retailing*, Vol. 70(2), pp. 163-178. [https://doi.org/10.1016/0022-4359\(94\)90013-2](https://doi.org/10.1016/0022-4359(94)90013-2)
- Bhatti, A. & Ali, R. (2021). Women constructing leadership identities in academia: Intersection of gender and culture. *Issues in Educational Research*, Vol. 31(1), pp. 1-18.
- Boylan, J., Dacre, J., & Gordon, H. (2019). *Addressing women's under-representation in medical leadership*. *Lancet* (London, England), 393(10171), e14. [https://doi.org/10.1016/S0140-6736\(18\)32110-X](https://doi.org/10.1016/S0140-6736(18)32110-X)
- Bothwell, E. (2017). *Female leadership advances slowly in the world's top universities*. Times Higher Education. <https://www.timeshighereducation.com/news/female-leadership-advances-slowly-in-worlds-top-u-universities>
- Burkinshaw, P., & White, K. (2017). Fixing the women or fixing universities: women in the leadership. *Administrative Sciences*, Vol. 7(3), pp.1-14.
- Bush, T. (2022). Middle leadership in higher education: Challenges and opportunities. *Educational Management Administration & Leadership*, Vol. 50(5), pp. 737-738.
- Campanini, F. & Pizarro, J. (2021). Promoting gendered structural change in leadership in higher education. *Investigaciones Feministas*, Vol. 2, pp. 319-330.
- Catalyst. (2020) *Women in Academia* (quick take). <https://www.catalyst.org/research/women-inacademia/>
- Clancy, L., & Austin, S. (2023). Fewer than a third of UN member states have ever had a woman leader. Pew Research Center. <https://www.pewresearch.org/short-reads/2023/03/28/women-leaders-around-the-world/>
- Crossman, A. (2019). *Pilot Study in Research*. Thought Co. <https://www.thoughtco.com/pilot-study302644>
- Dikko, M. (2016). Establishing Construct Validity and Reliability: Pilot Testing of a Qualitative Interview for Research in Takaful (Islamic Insurance). *The Qualitative Report*, 21(3), 521-528. <https://doi.org/10.46743/2160-3715/2016.2243>

- Devlin, M. (2021). *Reflections on Sexism in Australian universities*. Academia Letters. <https://doi.org/10.20935/al234>
- Flick, U. (2018). *The SAGE handbook of qualitative data collection*. London, England: Sage.
- Fraser, J., Fahlman, D., Arscott, J., & Guillot, I. (2018). Pilot testing for feasibility in a study of student retention and attrition in online undergraduate programs. *The International Review of Research in Open and Distributed Learning*, Vol. 9(1), pp. 261-278.
- Gallego-Morón N. & Montes-López E. (2021). The informal organisational structure: the limits of meritocracy in the academic career. *Feminist Research*, Vol. 12(2), pp. 331-342. <https://doi.org/10.5209/infe.72328>
- Gandhi, M., & Sen, K. (2021). Missing women in Indian university leadership: Barriers and facilitators. *Educational Management Administration & Leadership*, Vol. 49(2), pp. 352–369. <https://doi.org/10.1177/1741143219896048>
- Gipson, A. N., Pfaff, D. L., Mendelsohn, D. B., Catenacci, L. T., & Burke, W. W. (2017). Women and leadership: selection, development, leadership style, and performance. *The Journal of Applied Behavioral Science*, Vol. 53(1), pp. 32-65.
- Global Gender Gap Report* (2022). Available at: [https://www3.weforum.org/docs/WEF\\_GGGR\\_2022.pdf](https://www3.weforum.org/docs/WEF_GGGR_2022.pdf)
- Harvey-Jordan, S., & Long, S. (2001). The process and the pitfalls of semi-structured interviews. *Community Practitioner*, 74(6), 219.
- Holloway, I. (1997). *Basic concepts for qualitative research*. Oxford, UK: Blackwell Science.
- Irani, E. (2019). The use of videoconferencing for qualitative interviewing: Opportunities, challenges, and considerations. *Clinical Nursing Research*, 28(1), pp.3-8.
- Islam, M. A., Jantan, A. H., Hunt, A., Rahman, M. F., & Abdullah, M. M. (2019). Exploration of barriers faced by female graduate entrepreneurs in Bangladesh. *Entrepreneurship and Sustainability Issues*, Vol. 7(2), pp.1000-1014.
- Ismail, N., Kinchin, G., & Edwards, J. A. (2018). Pilot Study, Does It Really Matter? Learning Lessons from Conducting a Pilot Study for a Qualitative PhD Thesis. *International Journal of Social Science Research*, Vol. 6(1), pp.1-17.
- Jane, S., Kent, C., & Wah, W. (2020). Interrogating strategies and policies to advance women in academic leadership: The case of Hong Kong. *J. High. Educ. Policy Manag*, Vol. 42, pp.347-364.
- Knipfer, K., Shaughnessy, B., Hentschel, T. et al. (2017) Unlocking women's leadership potential: A curricular example for developing female leaders in academia. *Journal of Management Education*, Vol. 41(2), pp. 272-302.
- Lindquist, R. (1991). Don't Forget the Pilot Work! Heart & Lung: *The Journal of Acute and Critical Care*, Vol. 20(1), pp. 91-2.
- Lochmiller, C. R. (2021). Conducting thematic analysis with qualitative data. *Qualitative Report*, 26(6), 2029–2044. <https://doi.org/10.46743/2160-3715/2021.5008>
- Longman, K., Daniels, J., Bray, D.L., & Liddell, W. (2018). How organisational culture shapes women's leadership experiences. *Administrative Sciences*, Vol 8(2), pp. 1-16.
- Maheshwari, G. (2022). Symbolic Intersection of Self-Reflection, Workplace Interaction and Sociocultural Aspects in Shaping Women Identify as Leaders: A Study in Higher Education, Vietnam. *Vision*. <https://doi.org/10.1177/09722629221087405>
- Maheshwari, G., Gonzalez-Tamayo, L. A., & Olarewaju, A. D. (2023). An exploratory study on barriers and Enablers for women leaders in higher education institutions in Mexico. *Educational Management Administration & Leadership*. <https://doi.org/10.1177/17411432231153295>
- Majid, M. A. A., Othman, M., Mohamad, S. F., Lim. S. A. H., & Yusof, A. (2017). Piloting for Interviews in Qualitative Research: Operationalization and Lessons Learnt. *International Journal of Academic Research in Business and Social Sciences*, Vol. 7(4). doi: 10.6007/IJARBS/v7-i4/2916.
- Malmqvist, J., Hellberg, K., Möllås, G., Rose, R., & Shevlin, M. (2019). Conducting the Pilot Study: A Neglected Part of the Research Process? Methodological Findings Supporting the Importance of Piloting in Qualitative Research Studies. *International Journal of Qualitative Methods*, Vol. 18, pp 1-11
- Merma-Molina, G., Urrea-Solano, M., Baena-Morales, S., & Gavilán-Martín, D. (2022). The Satisfactions, Contributions, and Opportunities of Women Academics in the Framework of Sustainable Leadership: A Case Study. *Sustainability*, Vol. 14(14), 8937. <https://doi.org/10.3390/su14148937>
- Northouse, P.G. (2018). *Leadership: Theory and Practice*. Sage Publications, London.
- O'Connor, C., & Joffe, H. (2020). Intercoder reliability in qualitative research: Debates and practical guidelines. *International Journal of Qualitative Methods*, 19, 1–13. <https://doi.org/10.1177/1609406919899220>
- Olsen, R. (2018). *Pilot studies of educational interventions: How to conduct them and what we can learn from them*. In The SREE Spring 2018 Conference, Washington, D.C. [https://www.sree.org/conferences/2018s/program/download/abstract/2362\\_intro.pdf](https://www.sree.org/conferences/2018s/program/download/abstract/2362_intro.pdf)
- Patton, M. (1990). *Qualitative Evaluation and Research Methods* (pp. 169-186). Beverly Hills, CA: Sage.

- Roberts, K., Dowell, A., & Nie, J. B. (2019). Attempting rigour and replicability in thematic analysis of qualitative research data; A case study of codebook development. *BMC Medical Research Methodology*, 19(1), 1–9. <https://doi.org/10.1186/s12874-019-0707-y>
- Sairam, E. S. (2021). *Women Leading Countries? That's So Next Century*. Forbes. <https://www.forbes.com/sites/erinspencer1/2021/02/22/women-leading-countries-thats-apparently-so-next-century/?sh=66b428ae2f15>
- Shakir, M., & Rahman, A. (2022). Conducting Pilot Study In A Qualitative Inquiry: Learning Some Useful Lessons. *Journal of Positive School Psychology*, Vol. 6(10), pp. 1620-1624.
- Shepherd, S. (2017). Why are there so few female leaders in higher education: a case of structure or agency? *Management in Education*, Vol. 31(2), pp. 82-87.
- Siemiatycki, M. (2019). The diversity gap in the public–private partnership industry: an examination of women and visible minorities in senior leadership positions. *Annals of Public and Cooperative Economics*, Vol. 90(2), pp. 393-414.
- Slater, C. L., Gorosave, G. L., Silva, P. (2017). Women becoming social justice leaders with an inclusive view in Costa Rica, Mexico, and Spain. *Research in Educational Administration and Leadership*, Vol. 2(1), pp. 78-104.
- Teresi, J. A., Yu, X., Stewart, A. L., & Hays, R. (2022). Guidelines for Designing and Evaluating Feasibility Pilot Studies. *Medical Care*, Vol. 60(1), pp. 95-103.
- The United Nations (2018). *Meeting our commitments to gender equality in education*. UNESCO. <http://unesdoc.unesco.org/images/0026/002615/261593e.pdf>
- Thorpe, A. (2019). Educational leadership development and women: insights from critical realism. *International Journal of Leadership in Education*, Vol. 22(2), pp.135-147.
- Van Teijlingen, E., & Hundley, V. (2001). The importance of pilot studies. *Social Research Update*, (35), 1-4.
- Vogel, S., & Draper-Rodi, J. (2017). The importance of pilot studies, how to write them and what they mean. *International Journal of Osteopathic Medicine*, Vol. 23, pp. 2–3.
- Williams-McBean, C. T. (2019). The Value of a Qualitative Pilot Study in Multi-Phase Mixed Methods Research. *The Qualitative Report*, Vol. 24(5), pp. 1055-1064.
- Williams-McBean, C. T. (2019). The Value of a qualitative pilot study in a multi-phase mixed methods research. *The Qualitative Report*, Vol. 24(5), pp. 1055-1064.



**Appendix 1:**

**Semi-Structured Interview Questions:**

1. Do you think there is enough representation of women in leadership positions in academia? why?
2. Can you share with me your career advancement? How have you reached this position?
3. What characteristics must a woman possess in order to pursue a leadership position and how would you describe your leadership style?
4. What do you think of the enabling factors, such as support for women in leadership positions?  
What were the resources that you felt helped build or contribute to your being a successful leader?  
What core factors give life to your work as a leader (without them, it would not be what it is)? Give your response in the form of a story or incident.
5. How was your journey towards successful leadership?  
What are the challenges (the glass ceiling) that prevent women (you) from advancing in leadership roles? How can these challenges/barriers be prevented/overcome?
6. What do you value most about yourself, your work, and your organization?
7. What are your views on the strengths and weaknesses of women in leadership?
8. What are your views on recruitment? Do you think it's fair?
9. What are your expectations for improvements in academia in the workplace? Ideal future in academia? (The goal is to understand the future you would like to create.) e.g.: you wake up, it's 2 years from now. You go to work, and as if a miracle has taken place, everything is just the way you wished it would be. You are being sorted out for your strengths to bring out the best in others. What do you see that is new, different, or better?)