

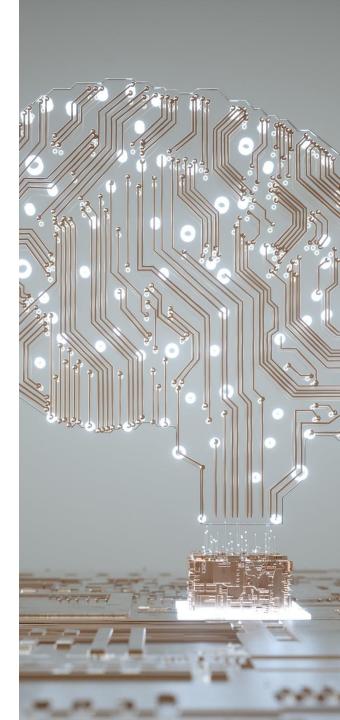


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# The Use of AI in Qualitative Research

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### 01 Introduction

## Transformation of qualitative research

Traditional qualitative research process: manual, human-driven interpretation

- Al potentially brings efficiency, scale, and potential new insights
- !! But: A critical perspective is important





## 02 Applications in the Qualitative Research Process **Data Collection**

Possible applications (not exhaustive)

- Assist in designing interview questions, e.g. by analyzing existing literature and identifying gaps:
  - Generative AI (e.g. ChatGPT, Gemini)
- Collection of qualitative data, conduction of interviews:
  - Qualz.ai, Mimitalk, Whyser, Xelper etc.





## O2 Applications in the Qualitative Research Process Al in Audio Recording Transcribing

Converting audio recordings into written text:

- Copilot in Microsoft Teams
- MAXQDA
- > Töggl, Swiss Transcript, swiss transcribe (specifically designed to transcribe Swiss German)
- Otter.ai
- OpenAl Whisper
- > Sonix
- > Trint
- > Happy Scribe etc.
- !! Plan time to correct transcript –not always 100 percent correct, depending on accent, ductus etc.



## 02 Applications in the Qualitative Research Process Al in Data Analysis

How Al assists in qualitative data analysis:

- Automated Coding and Tagging
- Thematic Identification
- Summarization
- Sentiment Analysis
- Data Organization and Visualization





## 02 Applications in the Qualitative Research Process **Best AI Tools for Qualitative Data Analysis**

- MAXQDA
- ATLAS.ti
- NVivo
- Dovetail
- Delve
- Generative AI (e.g. ChatGPT, Gemini, Claude)
- Ailyze

**INFRAS** 





### 04 Conclusions

### **Conclusions and Advice**

Al offers valuable assistance in automating certain tasks ->

- Use AI as a tool to augment your capabilities
- Gather your own experiences, exchange with others
- Maintain a critical stance
- Ensure human oversight
- Ethical considerations remain paramount
- ??How to report Al use in Qualitative reports







### Demo

## Prompt to design an Interview Guide (Gemini)

Please design an interview guide to explore challenges experienced by girls in Zimbabwe with regards to menstrual hygiene management

This interview guide is designed to explore the challenges that girls in Zimbabwe face with regards to menstrual hygiene management. The questions are divided into several key thematic areas to ensure a comprehensive understanding of the issue, from a personal, social, and institutional perspective. The guide uses a semi-structured format, allowing for flexibility and follow-up questions to delve deeper into the girls' experiences



**INFRAS** 

## Gemini response and thinking

Thank you for the confirmation. The interview guide I provided is a comprehensive tool to explore the challenges faced by girls in Zimbabwe regarding menstrual hygiene management. The guide's structure, which moves from personal experiences to broader social and institutional factors, is designed to capture the multifaceted nature of the problem.

The key thematic areas covered in the guide are:

- General and Background Information: To build rapport and understand the participant's context (age, school, family).
- 2. **Knowledge and Understanding:** To assess their awareness of menstruation and the sources of that information, which is often limited and influenced by cultural taboos.
- 3. Access to Menstrual Products: To investigate the issue of "period poverty," where the high cost and limited availability of sanitary products force girls to use unhygienic alternatives like rags, leaves, or cotton wool. This is a major barrier to effective MHM.

## Gemini response and thinking...

- 4. Water, Sanitation, and Hygiene (WASH) Facilities: To uncover the state of facilities at home and, crucially, at school. Inadequate or non-existent private toilets, lack of running water, and poor disposal systems are significant challenges that lead to discomfort, health risks, and school absenteeism.
- 5. Experiences and Social Impact: To explore the psychological and social effects of MHM challenges. The guide asks about feelings of shame, embarrassment, fear of leakage, and the experience of being teased or bullied. These factors directly contribute to girls missing school, which has long-term consequences for their education and future.
- 6. **Support and Solutions:** To identify existing support systems and to gather the girls' own ideas for improvement. This is a crucial step for developing effective, community-led interventions.

This guide is designed to be flexible. The interviewer can adapt the questions and use follow-up prompts to dig deeper into the unique experiences of each participant. The goal is to move beyond simple "yes" or "no" answers and to capture the rich, lived realities of girls in Zimbabwe as they navigate this natural process in a challenging environment.



## Gemini generated Interview guide in word

#### Interview Guide for Menstrual Hygiene Management (MHM) Among Girls in Zimbabwe

This interview guide is designed to explore the challenges that girls in Zimbabwe face with regards to menstrual hygiene management. The questions are divided into several key thematic areas to ensure a comprehensive understanding of the issue, from a personal, social, and institutional perspective. The guide uses a semi-structured format, allowing for flexibility and follow-up questions to delve deeper into the girls' experiences.

#### 1. General and Background Information

These questions establish a rapport with the interviewee and gather basic demographic and contextual information.

- How old are you?
- . Which grade are you in and which school do you attend? (or, if out-of-school, what do you do?)
- Where do you live? (e.g., rural village, urban township)
- Who do you live with?

#### 2. Knowledge and Understanding

This section aims to assess the girls' knowledge about menstruation and MHM.

- · When did you first get your period?
- How did you learn about menstruation? (e.g., from your mother, sister, friends, school, a health worker)
- Before your first period, did you know what was happening to your body? Please telling about that experience.
- What do you know about good menstrual hygiene practices?
- · Are there any beliefs or taboos about menstruation in your community or family?
- Can you discuss menstruation with your family, friends, or teachers? What about male family, members or teachers?

#### 3. Access to Menstrual Products

This part explores the financial and practical challenges related to obtaining menstrual products.

- What materials do you use to manage your period? (e.g., disposable pads, reusable pads, cloth rags, cotton wool)
- . Who buys these materials for you, or where do you get them from?
- · Are the products you use easy to get in your community?
- Are the sanitary products you use affordable for your family?
- Have you ever had to use something other than a proper sanitary product because you couldn't
  afford or find one? Please tell me about that.





#### 4. Water, Sanitation, and Hygiene (WASH) Facilities

This section focuses on the adequacy of facilities at home and at school.

- At home, do you have a private and clean place to change your menstrual materials? Is there
  a place to wash and dry reusable materials without others seeing?
- Is there always clean water available at home to wash your hands and body?
- · At school, what are the toilets like? Are they clean? Do they have doors for privacy?
- Is there a reliable water source at school to wash your hands or rinse out materials?
- Is there a private and safe place at school to dispose of used sanitary pads or rags?

#### 5. Experiences and Social Impact

These questions explore the social and psychological effects of MHM challenges.

- . During your period, do you ever feel shy or embarrassed? Can you give me an example?
- Have you ever missed school because you were on your period? How often?
- · What happens when you are on your period at school? Do you worry about leakage?
- Have you ever been teased or made fun of by other students (girls or boys) or even teachers because you were on your period?
- How does being on your period affect your ability to concentrate in class or participate in school activities?
- Have you ever experienced physical discomfort or pain during your period? What do you do to manage this?

#### 6. Support and Solutions

This final section looks at existing support systems and potential solutions.

- Do you receive any support from your parents, teachers, or community leaders regarding menstruation?
- Do you know if your school provides any help, like free sanitary pads or a place to rest?
- If you could change one thing about how girls in Zimbabwe manage their periods, what would it be?
- What do you think is the most important thing to help girls manage their periods with dignity?

## Audio Recording Transcribing (1/2)

**S3:** Voilà. [0:07:03.5]¶

\$1: Mais envoyez moi quand même par email et puis je regarderai à nouveau. [0:07:07.8]

 $\textbf{S2:-}WE\cdot could\cdot get\cdot this\cdot project\cdot or\cdot this\cdot project.\cdot (...)\cdot Or\cdot even\cdot berichten.\cdot (...)\cdot Zorgen\cdot Machten\cdot Zufrieden\cdot sind\cdot die\cdot Gruppen\cdot Erreicht\cdot haben.\cdot [0:07:27.8]\P$ 

Transcription of a bilingual interview with MAXQDA

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Transcription with MS Teams

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## Audio Recording Transcribing (2/2)

#### MAXQDA

**S2:** Vielen Dank. Es war sehr interessant. Also über das App noch mal zu hören. Also, ich habedas. Ich kannte ja das schon bereits und es war wirklich noch mal sehr interessant. [1:22:30.0]¶

**\$8:** Dankeschön. Es war wirklich sehr interessant. Ja. [1:22:34.6]¶

\$7: Danke auch von meiner Seite. Wirklich sehr. [1:22:37.5]

**\$4:** Sehr-vielen Dank. Und heute haben wir doch noch etwas gelernt. Also zusätzlich. [1:22:44.1]¶

#### MS Teams



Herzlichen Dank es war sehr interessant, also über die App nochmal zu hören also ich hab das, ich kannte ja das schon bereits und es war wirklich nochmal sehr interessant.



22:30e

Dankeschön, · das · war · es · wirklich · sehr · interessant, · ja.¶

:22:35

 $\label{lem:convergence} Ja, \cdot danke \cdot auch \cdot von \cdot meiner \cdot Seite \cdot wirklich \cdot war \cdot sehr, \cdot sehr, \cdot sehr, \cdot sehr \cdot lernreich. \P$ 

:22:39

 $Vielen \cdot Dank \cdot und \cdot heute \cdot Abend \cdot noch \cdot etwas \cdot gelernt \cdot also \cdot zus \"{a}tzlich ? \P$ 

 $\leftarrow$ 



## Qualitative Data Analysis

MAXQDA Tailwind: Thematic Identification, Summarization





## Qualitative Data Analysis

 MAXQDA Al Assist: "Advanced Search" via Al Assist Chat

