Research design map with the support of Artificial Intelligence using MAXQDA 24

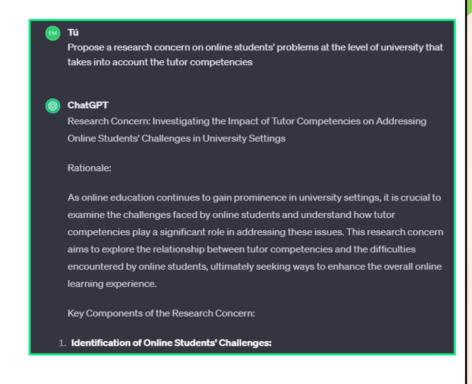


Introduction: Advances in implementing Artificial Intelligence in MAXQDA allow reformulate our original proposal (2016). The research design map is the structured representation of the key components of a study being a clear and understandable representation of how the research will be conducted. The objective of this communication is to summarize the options available in Artificial Intelligence, to present the methodological routes to analyze qualitative data and different uses we have applied in recent qualitative data analysis for our clients and to reflect on future possibilities for qualitative and mixed research design and analysis.

Below, we show different steps in qualitative research design with a special focus on qualitative data analysis.

Step 1. Elaborate on a research concern including its main components for the qualitative or mixed methods research

- Artificial Intelligence can help elaborate a research concern
- Research concern has implicit the main concepts of the research. Use them with your initial literature review
- Consider aspects like political contextual or historical sensitivity, time, funds or personal passion

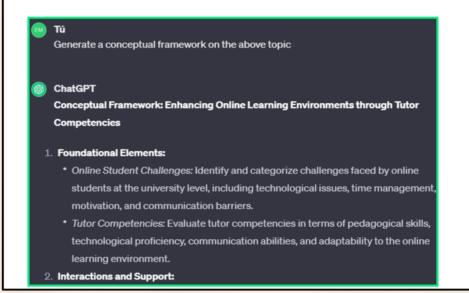


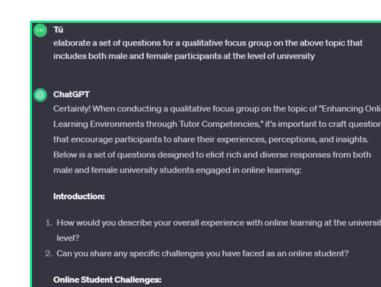
Step 2. Derive research questions and objectives from the research concern

- Artificial Intelligence can help with the formulation of research questions and research objectives
- Each research question has its methodological flow that decides if you need
- qualitative, quantitative or mixed methods approach to answer it and the methods involved
- Consider using MAXQDA 24 memos to set your research questions and objectives

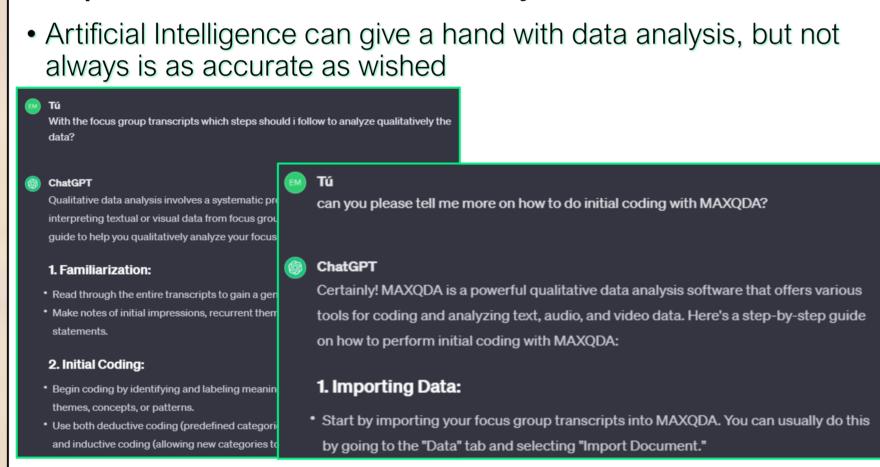
Step 3. Design field work, develop instruments and collect data from the field

- Literature review can help develop a conceptual framework on deductive research questions helped with Al
- Artificial Intelligence can support development of the tools



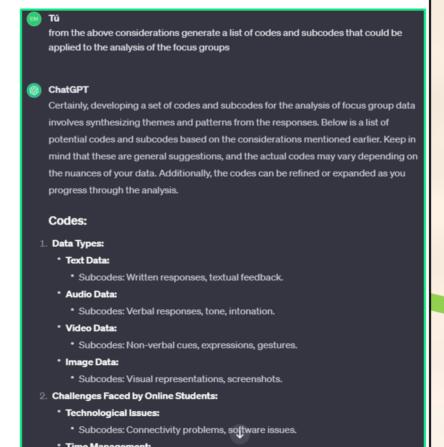


Step 6. Qualitative Data analysis



Step 5. Management of the codebook

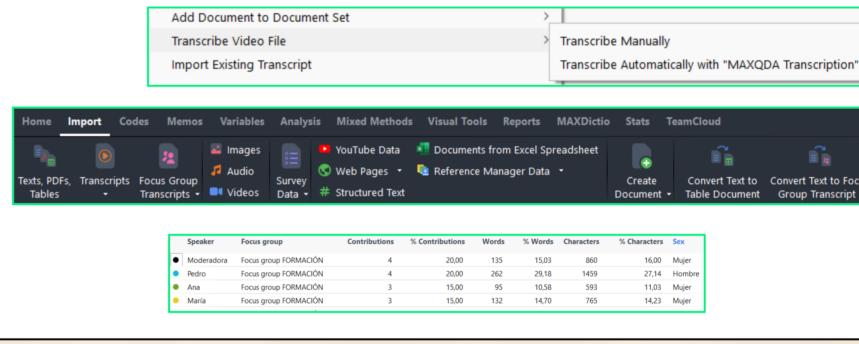
- From your literature review supported with MAXQDA 24 you can easily develop a conceptual framework
- Artificial Intelligence can suggest codes and subcodes
- Codes and subcodes can be easily imported to MAXQDA 24
- From automatic transcription you can summarize a document or get code suggestions for it



Challenges Faced by Online Students in University Settings

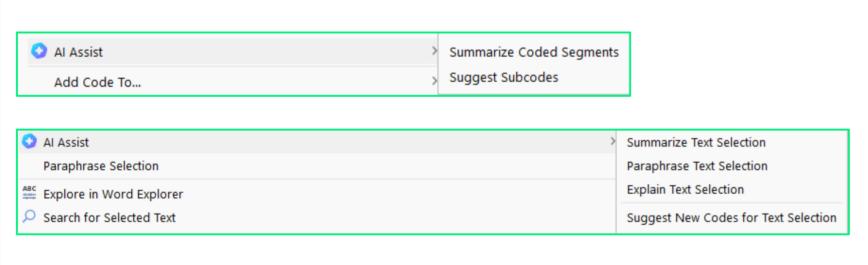
Step 4. Data management in MAXQDA 24

- Transcribe your data automatically
- Manage and order your data easily
- Specific analysis tools for concrete sets of data, e.g. focus groups



Step 7. Qualitative data analysis with MAXQDA

- MAXQDA 24 Al Assist can summarize documents, text, coded segments, etc.
- MAXQDA 24 Al Assist can paraphrase text, suggest subcodes or new codes or explain for us.



Step 8. Qualitative data analysis cycles

- Use sets or combinations of tools to improve the qualitative analysis
- 1. Code the data set manually and with
- Al Assist code suggestionsSummarize coded segments of each category (use proper variable activation
- 3. Elaborate a summary with Al to help build the conclusions in the report for different categories of a parent code

if apply)

4. Check the parts of the summary with AI to improve the discussion

Resumen AI FEMENINO
El tema principal de este texto es la educación tecnológ cómo la comunicación a través de mensajes puede llev la expresión corporal y el tono de voz de la otra persona
Además, se discute la adicción al móvil y cómo puede g la toxicidad de las redes sociales y cómo pueden gener
Por último, se habla sobre la importancia de utilizar las depender emocionalmente del móvil. En resumen, se tr
07/11/2023 6:32 - Antoni Casasempere
Resumen AI MIXTO
El tema de la educación tecnológica saludable se aboro efectiva y la interpretación correcta de los mensajes, ya celos e inseguridades en las relaciones de pareja, y se que es importante respetar el tiempo de los demás y no comunicación en las relaciones interpersonales.

Attachment Theory:

 Scholars such as John Bowlby and Mary Ainsworth have contributed significantly to attachment theory. Attachment styles, such as anxious or avoidant attachment, can influence how individuals experience and cope with jealousy in relationships.

 Jealousy and Relationship Satisfaction:

 Researchers like Robert J. Sternberg and John M. Gottman have studied factors influencing relationship satisfaction. Jealousy is often considered a negative factor that can impact the overall quality of a relationship.

Step 9. Future prospective on qualitative data analysis cycles

- Implementation of methodological well-known paths in MAXQDA with the support of Artificial Intelligence
- Constant comparison method (Glaser & Strauss, 1967)
- Thematic, evaluative and typological analysis (Kuckartz, 2014)
 Tactics to generate meaning (Miles, Huberman & Saldaña,
- 2014)
 Etcetera

with data

 With the training of AI models or assistants in specific topics, being guided, by personal academic criteria, would make smooth the qualitative data analysis and avoid one of its worst characteristics for young researchers: the long periods dealing

Using qualitative data analysis software (QDAS) can significantly enhance the efficiency, rigor, and depth of the analysis process in qualitative research. Here are several reasons highlighting the importance of using qualitative data analysis softwar **Data Organization and Management:** QDAS allows researchers to organize large volumes of qualitative data efficiently. It provides a centralized platform for storing, managing, and retrieving data, including text, audio, video, and image files. Code and Theme Development: Qualitative data analysis involves identifying codes and themes within the data. QDAS facilitates systematic coding by providing tools for creating, modifying, and managing codes. It allows researchers to organize codes hierarchically and explore relationships between them. Facilitates Systematic Coding: Software like NVivo, MAXQDA, or Dedoose streamlines the coding process. Researchers can apply codes to specific segments of data, easily retrieve coded segments, and explore patterns and relationships between codes. QDAS enables researchers to retrieve coded segments of data quickly. This

functionality is crucial during the analysis phase when researchers want to revisit

Conclusion: There is currently a growing debate regarding the development of artificial intelligence and data design and analysis in qualitative research. The restlessness that we now have about ethical issues, data management, future implications of its use, etc., reminds us of discussions decades ago in which the use of qualitative research software to support qualitative data analysis was demonized. Today (2024), no one doubts the need to use tools that help researchers carry out quality research efficiently and effectively, however, the inclusion in research of AI, analysis software, design maps, etc. must always be subject to the experience and sensitivity of the researchers.

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