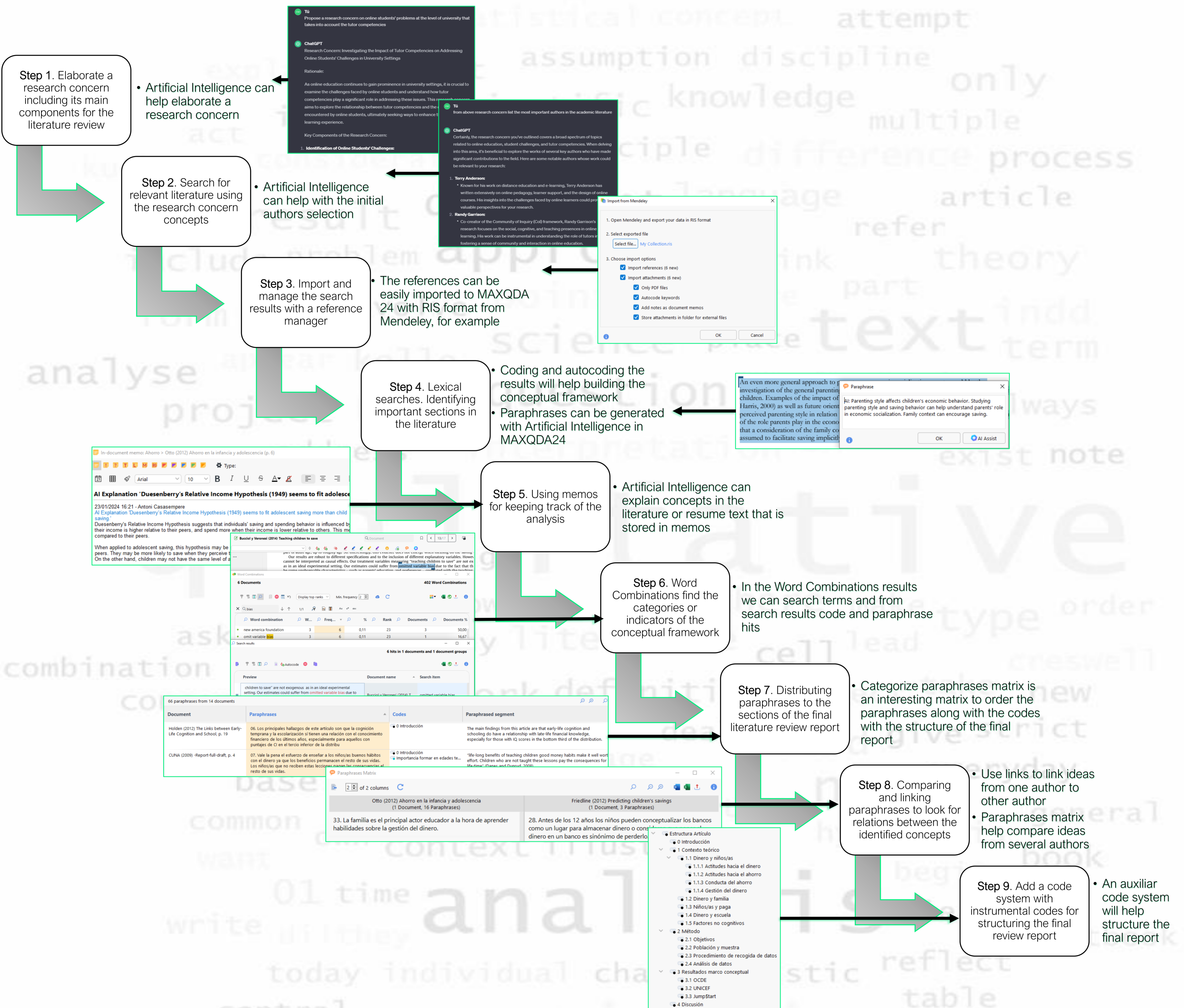# Automatic-manual system to perform Bibliographic Documentary Analysis, with the support of Artificial Intelligence using MAXQDA 24

2.0

Introduction: Advances in implementing Artificial Intelligence in MAXQDA allow reformulate our original proposal (2020). Paraphrase is a strategy to summarize data and develop analytical categories (Kuckartz & Rädiker, 2019). Although paraphrases do not require that the data have been previously coded, they do contribute to the inductive generation of analytical categories (Kuckartz, 2014). In this work, paraphrases are applied within the context of Bibliographic Documentary Analysis (BDA) (Casasempere-Satorres & Vercher-Ferrándiz, 2017) with the support of Artificial Intelligence as the central axis of the systematic process of bibliographic documentation and support for the generation of a conceptual framework that allows the adequate data collection and its subsequent analysis, both in qualitative, mixed methods or quantitative studies.

Step 1. Elaborate a research concern including its main components for the literature review

• Artificial Intelligence can help elaborate a research concern

Step 2. Search for relevant literature using the research concern concepts

• Artificial Intelligence can help with the initial authors selection

Step 3. Import and manage the search results with a reference manager

• The references can be easily imported to MAXQDA 24 with RIS format from Mendeley, for example

Step 4. Lexical searches. Identifying important sections in the literature

• Coding and autocoding the results will help building the conceptual framework
• Paraphrases can be generated with Artificial Intelligence in MAXQDA24

Step 5. Using memos for keeping track of the analysis

• Artificial Intelligence can explain concepts in the literature or resume text that is stored in memos

Step 6. Word Combinations find the categories or indicators of the conceptual framework

• In the Word Combinations results we can search terms and from search results code and paraphrase hits

Step 7. Distributing paraphrases to the sections of the final literature review report

• Categorize paraphrases matrix is an interesting matrix to order the paraphrases along with the codes with the structure of the final report

Step 8. Comparing and linking paraphrases to look for relations between the identified concepts

• Use links to link ideas from one author to other author
• Paraphrases matrix help compare ideas from several authors

Step 9. Add a code system with instrumental codes for structuring the final review report

• An auxiliar code system will help structure the final report

Conclusion: The aim has been to expose in detail this internal component of the Bibliographic Documentary Analysis based on the combination of automatic analytical tools of MAXQDA 24, support of Artificial Intelligence, and the analytical work of manual coding of the literature used in the research. Furthermore, MAXQDA 24 has a wide set of artificial intelligence tools that can support literature review processes such as paraphrasing, summary creation or code suggestion. Regarding any automated process, be it automatic coding or Artificial Intelligence, the good work, honesty, experience, knowledge and sensitivity of the researcher must prevail, although these are tools that help speed up investigations.

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Qualitative Research Consulting Services

Contact: Dr. Antoni Casasempere
antoni@cualsoft.com
Dr. Marisa Vercher
maverfer@upv.es