

Literature Reviews with MAXQDA

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MAXQDA includes many tools that can be used to facilitate a literature review. In previous Spotlight Sessions on this topic, I have discussed several of these, emphasizing the importance of ensuring the use of MAXQDA is driven by the analytic needs of the type of literature review you're doing. The previous three Spotlight Sessions on this topic are available on the MAXQDA YouTube channel, and they cover the following topics:

- 2021 Spotlight <u>http://tinyurl.com/Lit2021Spotlight</u>
 - Importing references and metadata from bibliographic tools (Endnote, Mendeley, Zotero)
 - \circ $\:$ Using documents to create your own critical appraisals that can be analysed
- 2022 Spotlight <u>http://tinyurl.com/Lit2022Spotlight</u>
 - Screening abstracts for inclusion/exclusion using codes & document-sets
 - Assessing quality at quantitative & qualitative levels using codes & variables
- 2023 Spotlight <u>http://tinyurl.com/Lit2023Spotlight</u>
 - $\circ~$ Importing and working with PDF files directly : marking & paraphrasing
 - Coding to systematise thinking about literature, integrate with other data & make comparisons

This year we focus on the use of AI Assist in contributing to doing a literature review focusing on summarizing, suggesting codes and explaining text passages.

Note: if you would like copies of the slides from today's Spotlight or any of the previous ones, please email me at <u>christina.silver@qdaservices.co.uk</u>



Using AI Assist <u>Summarization</u> for a literature review

Whatever you're summarizing using Al Assist, you get to choose among several options for how the summary will be generated – for example the language the ai-generated summary will be produced in (this does not have to be the same language as the document itself), the length of the summary (longer, standard or shorter) and whether you want the summary as a paragraph or a bullet pointed list.

In addition, you can use AI Assist to summarize on several different levels. These are described below, largest first:

- **Summarize a document:** this might initially seem the most obvious and useful form of AI-generated summary for a literature review, and it can be accomplished easily for each full-text article or other piece of literature you have imported into a project. Document summaries can be generated one document at a time, easily by Right Clicking on the document of choice in the Document System and choosing the AI Assist: Summarize Document option. The AI summary is created within a linked memo for that document
 - This can be a useful initial overview of each piece of literature, allowing you to get a more in-depth understanding of what the article is about than the abstract might give you, but without having to read the whole article.





- **Summarize coded segments**: if there are particular parts of the articles you're reviewing that you want to focus on, for example, the methods sections, to understand how the topic area has been researched in the past, you can first code those sections, and then summarize the coded-segments for that code. When using this option you can optionally scope the ai-generated summary to activated documents. Note there is a 80,000 character limit on this feature so you may find you need to scope in this way
 - These summaries will be more analytically focused around parts of the literature you are particularly interested in, which might not be standardized sections like 'Methods' in this example, but more thematic areas of interest you have already coded for, based on the topic of interest or identified gaps in the literature, for example
 - Note that when doing this you may be summarizing content from across several documents, so the summary will combine information from all of them. There is currently no way to see directly from the summary which document is being referenced when summarizing in this way

In the example below the 'Methods' code is summarized but only for activated documents (those articles published since 2015)



Spotlight with Christina Silver, PhD (2024)

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- Summarize coded segments via Summary Grids. An alternative to 'globally' summarizing at the code level is to do so via Summary Grids, whereby the coded-segments for the code of interest are summarized separately for each (activated) document.
 - The benefit of this approach is that you can trace more clearly which document the content comes from, and make direct comparisons in the Summary Grids

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- Summarize and Paraphrase text segments. These options are similar to one another in that they use AI Assist to summarize segments of text without the prior need to code (as is necessary in the previous two options, above). The image overleaf shows the difference, in terms of the nature of the summary that is generated and where and how they are displayed
 - When <u>summarizing a text segment</u>, you have the same length choices as previously, and the AI summary is place in an in-document memo (viewable as an icon in the left margin and displayed in full in the right sidebar if that display option is chosen)



• When <u>paraphrasing a text segment</u>, there is no choice regarding length, as paraphrases are always short. They will also be displayed in the side panel



The additional functionality you have when paraphrasing in this way is that you can subsequently view all AI paraphrases together (or selectively by activating documents) and optionally categorize the paraphrases to move to the coding level via your interpretations. Note that you can view and work with all paraphrases together in this way – i.e. any you created yourself as well as those created using AI Assist.

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			Hymel 2015, p. 1	Al: School anti-bullying programs are ineffective du social ecology. New efforts should consider group p socialization, as bystanders play a significant role in	processes and peer		Vailla for se (e.g., etc). – tha not s	heir review of research on school bullying. Swearer, Espelage, ancourt and Hymel (2010) offer several reasons for the lack-luster results reported school-based anti-bullying programs to date insembithy of measures, implementation fidelity and dosage, Two of the reasons they offered stand out as particularly significant at anti-bullying interventions have not been well grounded theoret-ially, and have seriously considered the social ecology in which bul-lying takes place. Accordingly, in pager, we explore reasons and	



Using AI Assist <u>Code Suggestions</u> for a literature review

You can ask AI Assist to suggest codes in two ways: via a code and via a selected text segment.

- **Code suggestions via a code.** From the RC menu of a code you can generate code suggestions based on the segments coded to the code. You can choose to have examples from the text bullet-pointed for each sub-code
 - This is usefully accomplished together with AI Code Summaries which are displayed in the same menu, and retrieving the coded-segments themselves

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	mental health (AC) Christina, 11/02/	2024 16:39
	This was cleaned first to remove all headers/footers, references, table titles etc	
x	11/02/2024 16:39 - Christina Silver Al subcode suggestions	
Receive subcode suggestions for the code mental health (AC). Al Assist will save them in the code memo.	1. LGBTO+ Mental Health - Increased risk for anxiety, depression, suicidality, posttraumatic stress, and substance abuse - Nergative experiences related to LGBTO+ identity can occur as early as elementary school, increasing the likelihood of experiencing minority-based stress developing mental health problems at a young age - Political conservative learning school districts angreater from orb utilying experiences and higher psychological distress, suicidality, and suicide after 2. Bulying and Mental Health - Bulying associated with severe symptoms of mental health problems, in cludies severe and suicidality - Bulying is associated with severe symptoms of mental health problems. Including self-harm and suicidality - Bulying is not derived the severe symptoms of mental health problems. Including self-harm and suicidality - Bulying is not derived and objectors in some Nordic countries and the United Kingdom - Mental health problems are increasing and adolescent in some Nordic countries and the United Kingdom	2+
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Add bullet list with examples for each subcode	 School climate research emphasizes the critical role teachers play in providing safe and supportive environments for students to learn LGBTQ+ inclusive policy and environments in public school seturings related to academic success and positive health outcomes for LGBTQ+ youth Explicit harassment, intimidation, and bullying (HIB) policy that is inclusive and affirming of all sexual and gender identities has contributed to less discrimit and improved health outcomes for LGBTQ+ youth 	nation
Only activated documents I hereby confirm that I have read and understood the privacy	4. Teacher Responses to Bullying - Individual in-depth interviews were conducted with 30 fourth through eighth grade teachers to determine their perceptions, experiences, and self-reported responses to address bullying - Results yielded a two dimensional model representing four responses to solutions for this innovative model of teacher responses to bullying and future research agendas are discussed.	
policy.	Note: Due to the amount of data, AI Assist had to limit the analysis to 16 segments from 3 documents.	
OK Cancel	Code summary 🔇	Q
•		
	> Linked codes (0) Linked coded segments (0)	

- **Code suggestions via a selected text segment.** Simply select a text segment, and have AI Assist suggest possible codes from that segment.
 - This is particularly useful if you want to remain primarily in control of the analytic process yourself, and code as you previously might have done, but have some suggestions that you can pick and choose from whilst reading and interpreting the text sequentially





If you choose to apply any of the suggested codes, they are displayed in the Code System and linked code memos contain the explanations. Once codes are created in this way they can be used like any other code – and the content of the memo adjusted as you add more segments and review them as you proceed.

▲ Marshall 2009 ▲ Moyano & Sanchez-Fuentes 2020 ▲ Offerin & Dadswell (2020) ▲ Rigby (2020) ▲ Troop-Gordon 2015 ▲ Veenstra 2014 ▲ Zerillo 2011	5 1 1 1 2 2	Personal character 000 School culture Atthubinal influence	s' personal attitudes and behaviors influence bullying in school ' willingness to report incidents to their teachers (Alsaker & 2001; Doll et al., 2004; Espelage & Swearer, 2003; Holt & Keyes, ers' attitudes toward bullying can be influenced by multiple ding personal characteristics (e.g., degree of empathy toward onality traits, etc.), demographic characteristics of students thnicity, gender, race, socioeconomic status, etc.), and the alues of the school culture (Holt & Keyes, 2004; Craig et al., rmore, researchers have shown that teachers' behaviors can
Codes	4	perpetuate b	ullying in school (Alsaker & Valkanover, 2001; Espelage &
 School culture 			3; Holt & Keyes, 2004, Rodkin & Hodges, 2003). For example,
Personal characteristics	B	Espelage an	d Swearer (2003) described the potential impact teachers'
🕞 mental health (AC)	B	School culture	have on bullying by stating that "teachers might foster bullying
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🕞 Data Analysis 🕞 Methods		·	
		11/02/2024 16:55 - Christina Silver	
💴 Sets		Al code suggestion "School culture": Explanation	
Paraphrased Segments		The collective beliefs and values within the school environment that may influence teachers' attitudes toward bullying.	

Using AI Assist *Explaining Text Segments* for a literature review

In addition is the ability to have AI Assist clarify terms, concepts, theories, technical terminology, or anything in the literature that you are unclear about the meaning of. This can be particularly useful when the author has neglected to define a term, or



you are unsure whether the way they are using particular terms reflects broader understandings. Note, this feature, designed as it is to explain terms, has a character limit of 15 characters.



Integrating AI Assist in your Literature Review Workflow

The AI Assist features are most usefully seen as an addition to the suite of tools and analytic techniques you may already be using to undertake a literature review, rather than as a replacement for them – hence the name AI **Assist**. As discussed in previous Spotlight Sessions on this topic, your literature review methodology (your analytic strategy) should drive your use of MAXQDA's tools (your tactics).

It is definitely worth experimenting with these AI tools, and considering whether and how they may support your work.