

Pedagogical Approach to Teaching Qualitative Meta-Synthesis

Introduction

We have designed these pedagogical materials to provide resources to scholars who want to teach others how to conduct qualitative meta-syntheses. They are designed to be used with learners with different learning needs, from undergraduate research assistants with little experience with research to advanced graduate students and faculty with previous experience. These materials are designed in a modular fashion in order to be easily adaptable to the needs of each group of learners, so that instructors can go in depth in certain areas, replace the content as appropriate, or skip over those that learners may find redundant. For example, if the instructor plans to teach a different qualitative meta-synthesis design from systematic thematic synthesis, they will want to replace the analysis modules that teach hybrid coding and thematic analysis with content on their analysis method of choice.

These materials have two main components, framing materials and a workbook with hands-on activities.

Framing Materials

These materials briefly introduce the theoretical grounding of our approach to teaching meta-synthesis and some of the main teaching strategies that we use in the eBook and in our meta-synthesis workshops. These include strategies to present the methods and to help learners apply them, and strategies to teach meta-synthesis to learners who have very different levels of knowledge and experience with qualitative research in general and meta-synthesis in particular.

A Workbook with Hands-On Activities

A set of materials for the facilitator that includes activities to teach meta-synthesis that have been pulled out from the User Guide with notes on how to adapt them or extend them for different learners. In some cases, activities that are not present in the eBook have been added to scaffold the learning process. These activities are organized in the same order as the rest of the User Guide, module by module. Each activity has a length of time assigned to it. These times do not refer to how long each activity takes when conducting a meta-synthesis, but the amount of time expected for learners to engage in the activity during webinars and workshops to have sufficient understanding of what it involves and be able to reflect on its different dimensions. Going through the

full set of activities will provide learners with experience with the different steps and materials to use in building their meta-synthesis project.

Together, the framing materials and the activity set constitute a qualitative meta-synthesis “teachers’ manual” to be used alongside the eBook. When running a meta-synthesis workshop, reading the module that corresponds to the topic of the day and the activities that will be tackled should be assigned to learners as the work that needs to be done ahead of each session.

Theoretical Grounding of Our Approach

In our pedagogical approach to teach qualitative meta-synthesis, we take a constructivist position informed by the work of theorists such as Lev Vygotsky, Jean Piaget, John Dewey, and Jerome Bruner. This means that our meta-synthesis teaching process takes learners through parallel activities with the teacher to progressively learn and implement the different steps of the methodology and eventually implement them independently. Here we outline some of the steps and strategies that we use in our work to show the specific ways that we implement this constructivist approach.

Presenting the Synthesis Approach

Remember that many people may not be familiar with qualitative meta-synthesis, so the first step is to introduce it so that learners understand its purpose and the difference between different approaches to reviewing and synthesizing literature. Module 1 includes information about what qualitative meta-synthesis is and how it is similar to and different from literature reviews.

Once the basic ideas have been shared with learners, you are ready to start addressing the how-to. Here are some steps and strategies that we have found useful.

Let Participants Know What Will Be Covered

It is important to let learners know what will be covered in a session so that they are ready to connect what they already know with the new knowledge and processes that you will be presenting.

- The User Guide has a list of objectives at the beginning of each sub-module that lists the main concepts that participants will learn.
- In the workshops, there is a list of topics in the slides at the beginning of each session and there is a slide that separates each topic so that the topic is clear.

Provide a Short Explanation of the Process and Principles Behind It

First, provide the theoretical considerations of the methodological choices presented (e.g., main concepts, principles) so that learners understand the reasons these particular methods are being used. Then, provide

explanations of the processes involved in the method, including the mechanics behind the process by breaking it down into smaller steps.

PROVIDE EXAMPLES THAT SHOW EACH PROCESS IN ACTION

It is easier to imagine yourself using a method when you have the chance to see how it works. Having examples that illustrate each process will help participants see themselves using meta-synthesis methods and start thinking about how they may need to adapt them to their needs.

- Provide examples that are relevant for learners' discipline, area of focus, or population as this will help them to make connections between the methodology and their own work. It will make the methodology more tangible, and they will be able to more clearly articulate questions they may have in its application.
- Graphic and multimodal representations of the processes, examples, and demonstrations will enhance accessibility and learning. The more ways in which you can explain and represent what you are trying to convey, the better.
- As learners begin to apply the steps to their meta-synthesis work, they will certainly come across difficulties that you will need to coach them through. In reviewing the User Guide, think about examples and places in the guide where learners will struggle or where they will have questions on how to proceed.

PROVIDE QUESTIONS FOR INDIVIDUAL AND GROUP REFLECTION ABOUT THE MAIN CONCEPTS AND THEIR APPLICATION.

This is particularly important when introducing new concepts where participants need to have both a theoretical and applied understanding. It is also helpful for checking learners' understanding; you will be able to see if they are grasping the concepts and applying them appropriately. Additionally, these opportunities for interaction will contribute to the development of a community of learners that support each other.

Provide Resources that People Can Use to Get Started Implementing the Methods Presented

This will get learners past initial inertia and will make the process less overwhelming as they have resources to guide them. The User Guide includes some resources, such as a list of search engines and the SPICE framework. Remember to add resources that are relevant for learners' disciplines, area of focus, or population. For example, if you are working with a group of learners who do discipline-based educational research, you may want to provide them with a list of journals that publish this type of research when talking about publishing meta-synthesis manuscripts.

Applying the Synthesis Approach

Point Out What to Observe in Each Activity and Its Significance

This will help learners understand why they are engaging in the activity and what they should be getting out of it. It will also make them more mindful of how they are doing the work.

Create Activities that Get Learners to Experience the Process by Breaking It Down into Smaller Steps

This will assist learners in applying the meta-synthesis methods by making it more accessible and less intimidating. This also follows best practices in pedagogy, as presenting pieces of the material that build on each other (i.e., scaffolding the material) is more effective than presenting all the material at once.

Have Learners Reflect on How They Would Apply or Adapt the Methods to Their Own Project

This will help learners foresee what issues may come up and start planning ways to address them. Consider what might be the best format for this reflection. This will depend on the backgrounds and disciplines of your learners, the space where you are teaching, and their previous experience with qualitative meta-synthesis or other related methods. Sometimes group work may work better, such as when you have learners from similar disciplines, since they may encounter similar issues, and they may be able to support each other with strategies and solutions. On other occasions, individual work may make more sense. This might be the case for learners with unique meta-synthesis projects or in a disciplinarily diverse group with few overlaps.

Get Learners to Use the Process Towards Their Own Meta-Synthesis

Tell your learners to test what they are learning/developing for their own meta-synthesis (e.g., search strings, critical appraisal criteria) and have them figure out how something works on their own (e.g., how Boolean operators work, how to use Google Scholar's different features). This will help them to become more familiar with the methodology, keep them interested in learning it, and will provide them with products that they can return to, improve upon, and use for a publication of their synthesis work. These will help them feel more confident as they proceed with the different steps.

Encourage Participants to Keep Track of Their Process

A key to a successful meta-synthesis project is transparent and diligent documentation of all search results, selection and critical appraisal criteria, and decision-making at each step. It will be critical for you as the instructor to reemphasize this fact throughout the entire time your learners are engaged in learning meta-synthesis. Remind them that they need to be organized and track everything, such as search results and decisions made throughout the process. This rigor is needed for quality meta-findings and will assist them in writing their synthesis manuscript later. In addition, keeping track of their process will help them in the writing and publication process. It will make writing their methods easier since they will have a detailed record of the steps and decisions made along the way. It has also become an expectation for the publication of synthesis work to provide a detailed account of how many publications have been reviewed and discarded in the process.

Get Learners to Check Their Own Process

Some strategies include activities such as engaging them in group work, utilizing our Institute's accountability forms, having a group discussion with guiding questions, or asking learners to share their work to receive feedback from their peers. These activities allow the learner to deeply reflect on what they know, what they do not know, and what they will do to find the answers that they need. Group work allows for peer assistance with sensemaking and troubleshooting as well as overall community building. If you decide to use our Institute's accountability forms, you will be able to check in with your learners individually throughout your course and tailor your suggestions to their needs. The accountability forms are a convenient tool to track where your learner is at in their meta-synthesis project, offering them a place to jot down their questions for you about the process, concerns they may have, or topics for review.

Strategies to Work with People at Different Levels Without Losing Them

Understand What Your Students Know

As with any course, you will have learners with varying abilities and experiences. Some will be familiar with qualitative methodologies and the coding process; others will have quantitative backgrounds and will be encountering qualitative research for the first time. It will be important for you as the instructor to understand what your students know at the beginning of the course. Our team typically uses an intake form prior to our workshops to gauge how much our attendees know about qualitative research and meta-synthesis, how developed their meta-synthesis plan is, and how advanced they are in its implementation. This helps us to shape our pedagogical approach and anticipate any questions or problems.

Start with the Basics

Do not assume that participants have experience with qualitative research. Start with basic information so that everyone can understand it at their own level/pace and scaffold their learning. Often, even people with experience in qualitative methods appreciate the refresher and learn new approaches and skills in our webinars and workshops. For example, we have found that experienced researchers appreciate having the opportunity to reflect on their writing practice in the Module on writing and publishing, or that though they are used to searching and selecting literature, they never considered using systematic methods such as filtering and snowballing.

Share Your Experiences

Try to eliminate the intimidation factor from the method by sharing your own experiences and challenges with meta-synthesis work. Encourage others to share their experiences and ideas through group discussions, peer-to-peer interactions, and collaboration where learners can assist each other with addressing barriers or concerns with the methodology. We have found that sharing our own experiences and challenges with meta-synthesis

made it more approachable to participants by showing it is not an exact science and by suggesting areas where they may run into challenges themselves.

Consider the Group's Composition

When doing group activities, think about whether homogeneous or heterogeneous groups will work better for the learning environment. For example, if there are student/professor pairs, you may consider breaking the pairs into different groups to avoid replicating established power dynamics.

Offer Additional Resources for Further Guidance

You may not be able to teach each learner everything they need to know to conduct a meta-synthesis given the available time. For topics beyond what is covered in the course or for deeper engagement with course content, make sure to provide learners with materials and resources that they can turn to for more information. The User Guide provides some additional resources, but you may want to complement them with discipline-specific resources.

Help Learners to Think Creatively

The User Guide includes a highly structured approach to qualitative meta-synthesis to help participants understand the principles and processes. However, the implementation is always messier than what we present in the User Guide. Learners should think creatively about how to apply the method and how to tackle the difficulties that they will run into. They may want to think about different types of literature to synthesize besides findings reports, or they may want to use different analysis approaches for a slightly different meta-synthesis design. For example, you can provide examples of different meta-synthesis articles, or you can engage learners in a brainstorming session to explore what may be different types of literature for which a synthesis would be relevant in their discipline.

Support Rigor

Help learners think about how to implement rigor in their project by considering the ways in which they can make readers of their meta-synthesis confident in their findings. There are established standards around what is expected in a meta-synthesis report (e.g., listing search engines used, providing examples of search strings), so it is important that learners keep them in mind when developing a manuscript. Learners will also need to consider the different standards and practices in different disciplines and how they should be implemented in their synthesis work. Additionally, learners may want to consider what further ways they may implement rigor in their work beyond the standards of meta-synthesis and of their disciplines. This will be particularly important if they are experimenting beyond the traditional boundaries of meta-synthesis or of their disciplines. For example, learners may be interested in synthesizing opinion pieces instead of empirical studies. In this case, they will need to carefully think about how they may show rigor in their work, since their meta-synthesis premises will be quite different from those of traditional meta-syntheses.

Online and Asynchronous Teaching

In this section we discuss strategies that we have used to make our teaching as engaging and interactive as possible, particularly when teaching online. We developed these strategies early for our institute out of necessity. We originally designed the Institute for Meta-Synthesis to offer in-person workshops to engage early career professionals interested in meta-synthesis in a traditional classroom environment. However, our Institute was founded in 2020, when universities and schools were testing online teaching as the main alternative modality due to the COVID-19 pandemic. As we worked through what we thought that participants would need to learn, we also had to think about how we could ensure that participants engaged with the materials beyond understanding the content, providing opportunities to implement, reflect, adapt, and interact. In some cases, these strategies would similarly work in in-person sessions. In other cases, we took advantage of technological tools that facilitated engagement. These strategies are not exhaustive and, given that technology keeps evolving and providing additional options for engagement, they are ever expanding and changing. Hopefully, these strategies will be a starting point that will help you think about going beyond the lecture to engage learners in active exploration of the materials.

Make Use of Breakout Rooms

One way to make your course more interactive is by coordinating and facilitating breakout rooms during virtual sessions when using video conferencing software (e.g., Zoom). Breakout rooms are digital spaces that split off from the main video conference space. They allow as many as 50 participants to engage in a smaller, more intimate virtual space as compared to a large group discussion in the original virtual space. Breaking up your learners into small groups will allow them to discuss challenges with meta-synthesis work and co-develop strategies to address them. If you decide to use breakout rooms in your sessions, you will need to provide clear instructions to your learners prior to the breakout session, such as task or topic of discussion, time allotted to the activity, and whether the team will need to share out with the larger group. Once the learners are in the breakout rooms, it may be difficult to relay information even if you utilize the resources provided by the video conferencing software, such as the “broadcast” feature on Zoom, because most people will hopefully be engaged in the activity and not be paying attention to the small text on the screen.

Develop Short Activities that Provide Engagement Opportunities

Short activities that are reflective or interactive will give learners the opportunity to check their understanding of the concepts. This will also allow you to see if you need to adjust your teaching approach, offer more context, provide additional resources and examples, or review concepts. In a virtual setting, our team has used word clouds for search terms and polls for critical appraisal criteria. There are several platforms available online that offer participant engagement activities can be integrated into your online classroom. Two platforms we have used for our webinars include Slido and NearPod. Also, remember that virtual conferencing programs have applications that can be useful, such as the interactive whiteboard.

Model the Approach Through Follow-Along Demos

In some cases, the techniques that we teach are not conceptually complex, but a matter of finding where certain features are or understanding a sequence of steps to get to a result. An example of this is conducting forward snowballing. We teach it by demonstrating the use of the “Cited by” feature on Google Scholar and then showing how to do searches within the results. Though it is not a complex process, participants often comment on how helpful it was to see forward snowballing in action because they had never thought of searching for literature in this way.

Connect Activities to Learning Objectives

Just like with in-person, in synchronous instruction you should explicitly connect activities to each other and to the purpose of the activities and overall course. This will help participants understand how the different pieces make sense within the whole and why they are engaging in the different activities. While introducing the activity, explain to learners why they will be engaging in the activity and how it prepares them for the next step. This is especially critical for teaching qualitative meta-synthesis, as each step builds on the one prior.

Provide Customized and Easily Accessible Materials

When we prepare a session, we think back to previous webinars and workshops to improve examples and materials, and work with our partners to customize materials that support the specific learning needs of the group that we will be working with. We pay particular attention to conceptually complex ideas, materials that will help participants better connect with the content, helpful strategies, and materials that may be harder to get. Some of the materials we have developed are extended explanations of the different types of synthesis methods, examples of synthesis papers for different disciplines that are of particular interest to our partners, tracker templates, and lists of search engines, among others. We then make these materials available on our website and post them to the virtual session chat. Sometimes, we have provided the materials to our partners ahead of time for distribution among participants using their communication channels. The goal is accessibility both in terms of content and of getting materials in participants’ hands.

Have a Plan for Tech Issues

Despite advances in technology, there is always the possibility that different websites and tools can crash or fail to load as you are teaching online. If you integrated Slido into a slide deck and it fails to work as planned, be prepared to pivot by suggesting that participants include their responses to your activity in the chat. If you plan to do any follow-along demonstrations, consider recording these demonstrations ahead of time and sharing these recordings with participants if doing a live demonstration is not possible.

Have an Alternative Plan if An Activity Does Not Work

Although we have repeatedly tested activities, there is always the possibility that they will not work with a specific group, so it is good practice to have an alternative plan in place. For example, if the plan was to have breakout groups and have reports back to the whole group, but people are reticent to speak up, you can be ready with questions that can be answered with a show of hands (e.g., which group had X experience?) and with examples drawn from your own experience.