SSAGE researchmethods Using Sage Research Methods in Online and Hybrid Learning: An Instructional Guide

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Research methods are hard to learn, and a challenge to teach.

The term "research methods" can encompass a wide range of topics, from abstract ideas about ethics and theory to practical skills like interviewing or statistical analysis. Understanding research methods is only the beginning for those who would become researchers.

We teach students about research methods for two main reasons:

- So they understand the research articles they read. In today's "just Google it" way of finding information, all students benefit from being able to dissect articles and evaluate their credibility. Was the approach an appropriate and ethical way to study the problem? Did the data adequately support the findings? If participants were surveyed or interviewed, did the researcher find the right informants and ask the right questions?
- So they can design and conduct their own research. Some undergraduate and postgraduate students, and all doctoral students, carry out research in order to complete academic degrees.

Conventional read-discuss-write approaches to instruction aren't adequate for developing a novice researcher's ability to analyze the options, decide what fits the purpose of the study, create an ethical proposal, then actually conduct the research and write about it. Fortunately, when teaching research online we have the following two important ways to improve students' knowledge and abilities:

- We can expose students to a wider, multidisciplinary scope of methodological literature and perspectives;
- We can nurture students' confidence in taking the role of the researcher through
 experiential projects that allow them to build digital library and literacy competences,
 collaborative and investigative skills, that will be beneficial in future academic
 coursework and in research design.

How can we teach research in a big-thinking, active-learning way? In this instructional guide, we offer ideas you can adapt and apply in the courses you teach, or in coaching and supervising research students. We explore ways to use SAGE Research Methods to accomplish three goals:

Teach methods from across disciplines.

Methods that have been associated with particular fields of study are being used by researchers in other disciplines. For example, researchers in fields such as business or education are drawing on ethnographic methods previously associated with sociology or anthropology. Exposing students to a range of methods also exposes them to other ways of thinking about research problems.

Use research (and research activities) to inform teaching across the curriculum.

Yes, we teach methods in research courses. However, students also learn about research methods when they dissect scholarly articles or carry out research projects in subject-matter courses. These learning experiences allow students to study research in contexts relevant to their professional and academic interests. By cultivating a sense of curiosity, students gain the mindset of a researcher.

Learn-by-doing through research projects and practica.

First-hand experience is essential. Active learning throughout the curriculum with hands-on projects helps students prepare for roles as researchers. As these articles note, mentoring and modeling from instructors and time for discussing and reflecting on the project translate into more meaningful learning.

Teaching Research: Start by Creating a Culture of Inquiry

Researchers carrying out empirical studies rarely work in a linear way – they need to be aware of and use an entire system of methodological thinking and practices. They must realize that each design choice influences other parts of the study. Students who learn research methods with a holistic approach are able to align aspects of their own research designs with ease.

The philosopher John Dewey wrote in an era that had remarkable similarities to our own. When the telegraph and telephone opened immediate communication across the oceans and continents, he noted that while these technologies had broken down barriers "to bring peoples and classes into closer and more perceptible connection with one another. It remains for the most part to secure the intellectual and emotional significance of this physical annihilation of space" (Dewey, 1916, p. 85). At the same time, the nature of work was changing with the Industrial Revolution and Dewey saw a corresponding need to change the nature of education. He identified a prevalent view that "the subject-matter of education consists of bodies of information and of skills that have been worked out in the past; therefore, the chief business of the school is to transmit them to the new generation" (Dewey, 1938, p. 17) and criticized it as hopelessly out of step with the newly connected world. Instead, he thought students need opportunities to gain the experience through problem-solving and reflection.

So many years later, we revisit similar themes. We still grapple with the significance of bridging distances even though we live in a connected world. Even today, some welcome globalism, while some others fear it. We still contend with the educational dilemma Dewey described because simply transmitting information and skills is inadequate preparation for the challenges students face in academic, professional, and civic life. Knowing how to dig below the surface, discern fact from opinion, use scientific approaches to understand problems and support conclusions are ever more important. How can we infuse research methods into instructional approaches to develop new habits of mind?

For the moment let's set aside the details associated with various methodologies and think about the core elements of the research process. In most cases, we begin with a problem, and



define the questions we want to answer. We find people or materials to explore and gather relevant data.
After we analyze them, we try to draw some kind of

conclusions and then share what was learned by presenting it to others in a written or verbal form. We carry out these steps within epistemological and theoretical frameworks that help us understand and explain their positions as researchers in relationship with the world. How can we use these steps to build a culture of inquiry in all of the courses we teach?

Here are some suggestions from a learning-to-research, researching-to-learn orientation.

Depending on the available time and the nature of the class, you can use these ideas to reframe discussions or write assignments, or as the basis for research projects that involve collecting and analyzing data.

Research Steps	Learning Through Inquiry	Developing a Researcher's Mindset
Discover problems	What problem do we need to understand?	Do I have an open mind about this problem?
Use assigned and/or library research to gain perspectives on the problem, and define questions.	 What information is incomplete or outdated? Whose voices are missing? Do the readings represent local or global perspectives? What are the writers' assumptions or biases? Do the writers provide adequate foundations or evidence for their conclusions? Are there significant conflicts or differences within the set of readings—or in the field? 	Let's question the foundations of the materials we read and make a habit of looking for gaps in the literature. When we uncover biases, let's use them as the basis for reflection on our own world views and how they might influence the questions we choose to research.
Sample: People or Documents Gather Data	 Based on biases or on missing or incomplete data you identified, where can you find what you need to develop a more comprehensive understanding? Do you need to read more on the topic, or ask someone? Who? 	Let's think about how to include global and/or underrepresented perspectives, including the use of open access or other materials that might not appear in library databases. Let's brainstorm ways to reach people who don't typically participate in research.
Analyze and Interpret	 What critical reading and thinking skills do we need to analyze these sources? How can we learn to use content, text, discourse, statistical or other data analysis methods by practicing with library research and/or course readings? 	Let's practice looking with an analytic lens. Whether we use qualitative or quantitative methods, let's reflect on ways our own backgrounds or prior understandings influence our interpretation of results.
Conclude and Report	 What did you learn? What new problems or questions did you discover? How can you present it in a way that leads to further exploration? 	Let's reflect on ways to be transparent about biases or shortcomings when we report research findings. Let's consider how to communicate findings with people outside of academia—especially those who can put new ideas into practice.

Using Inquiry Models to Teach Students How to Ask Questions

At its most fundamental level, research is about asking questions. This is true whether we are literally asking questions to participants through interviews or surveys or looking for answers to our questions in the literature or social networking posts. If we are not curious, if we don't know how to ask questions with an open mind, it is hard to be a good researcher. How do you teach someone to be curious? How do you motivate someone to cultivate an inquiring mind? How do you encourage students to develop the creative and critical thinking skills they will need as researchers?

Luckily, educators have thought about these dilemmas and developed models of teaching that replace lectures with engaging learning experiences. *Models of Teaching* by Joyce, Weil and Calhoun introduced me to some possibilities – it is one of the few textbooks that journeyed with me over multiple cross-country moves, from student days at Cornell University to my current bookshelf (Weil, Joyce, & Calhoun, 2015). I updated to a more recent edition, but the principles are the same. Even though the authors focus on K-12 teaching – I am intrigued by the potential for personal, social, and inquiry models of teaching. Once I started teaching research methods I wondered: can't we use inquiry models to develop inquisitive student researchers? The answer is yes, and I hope you will find some ideas that will work with your students.

What are inquiry models?

Inquiry models of teaching aim to stimulate students' curiosity and build their skills in finding, analyzing, and using new information to answer questions and solve problems. As educators we shift from trying to transfer knowledge, to building new knowledge. Instead of providing facts, we create an environment where students are encouraged to explore new ways of looking at and understanding problems, discerning important and relevant concepts, and inductively developing coherent answers or approaches. As Weil et al. (2015) explain:

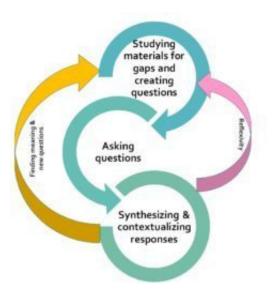
Humans conceptualize all the time, comparing and contrasting objects, events, emotions – everything. To capitalize on this natural tendency, we raise the learning environment to give test to the students to increase their effectiveness. Working in using concepts, and we hope that consciously develop your skills for doing so. (p. 86)

They suggest 3 guidelines for planning this kind of learning experience (Weil et al., 2015):

- **Focus**: Concentrate on an area of inquiry, within a specific domain, that is feasible for students to master within the timeframe of the assignment.
- Conceptual control: Organize information into concepts, and gain mastery by distinguishing between and categorizing concepts.
- Converting conceptual understanding to skills: Learn to build and extend categories, manipulate concepts, and use them to develop solutions or answers to the original questions.

How can we use inquiry models to teach research methods?

Online or face-to-face research activities can be developed that apply the Weil et al.'s guidelines. Here are a few ideas that could be used with individual students or as team



activities:

as focus aligns with the stages researchers know as research design. Activities center on a deep dive into a specific domain. What are the unanswered questions in the materials we are reading or the topics we are discussing? What do we want to know, and what information is needed to answer what

questions? Depending on the academic level of the course, the professor can provide a

domain or ask the students to define it. Approaches to gathering information can include library research to find documents or visual records available in digital libraries or archives. Gathering information can also include online interviews with practitioners, experts, or individuals with experience in the topic at hand. Assignments can include observation of online activities, including videos, social media, communities, and posted discussions.

- 2. Conceptual Control: Activities within the stage Weil et al. defined as conceptual control align with the stages researchers might describe as data management and analysis. Once information has been collected, students organize, prioritize, and explain relationships between key ideas. They move from single-attribute categories to more complex hierarchies of concepts.
- 3. **Converting conceptual understanding to skills:** This is the point where they can begin to develop habits of reflexivity. The above activities are of little use unless students can synthesize and make sense of what they've studied. What can they *do* with what they've learned? What skills were developed? What new questions will they need to answer next?

Weil et al. suggest that learning activities organized in this way utilize inductive thinking, which "increases students' abilities to form concepts efficiently and increases the range of perspectives from which they can view information" (p. 87). Surely students who have been actively engaged in these kinds of explorations will be better prepared to conduct empirical research.

Whether we are working with students who are children or adults, by moving from transmission to exploration, we can help our students realize the importance of inquiry. Being prepared to ask hard questions and think critically will be beneficial not only in the classroom or

laboratory, but also in their everyday lives. In the process, they will develop mindsets and skillsets that will prepare them to be researchers in a complicated world.

Try it! Have you used experiential models of teaching to intentionally plan learning experiences that allow students to develop the mindsets and skills of researchers? How could you use these approaches with your students?

Building a Community of Inquiry: Fostering Presence in the Online Classroom What instructional approaches help build a community of inquiry online?

When we are teaching research concepts, practices, and methods online, we can think about it

as a process of building a learning community. To engage students, we need to be engaged too. Most of us are used to being online, to connecting across distances. But given how busy professors are, how can we find realistic ways to make sure online students feel that we are there for them, when they are trying

How do you know I am here, a real person, on the other side of the monitor? You can see me when we are in a videoconference, but when the whole class is online, what can you discern from the postage-size image of my face? Is it appropriate to tell you that I am having a really hard time?

new ways of learning topics that might be quite foreign and intimidating?

In online learning, *presence* is established differently than in a face-to-face classroom. Given our varied roles, more than one kind of presence is needed. The <u>Community of Inquiry</u> model developed by Garrison and Anderson in the early e-learning days, has been refined over the years. It describes three kinds of presence: teaching, cognitive, and social (Garrison, 2017). While the Community of Inquiry was designed with online learning in mind, it is not about technology – it is about presence.

Social Presence describes the extent to which the students feel able to project themselves purposefully and socially within a community of inquiry, and have the feeling of being together to achieve meaningful interactions, establish and maintain relationships, and create productive social systems in online environments;

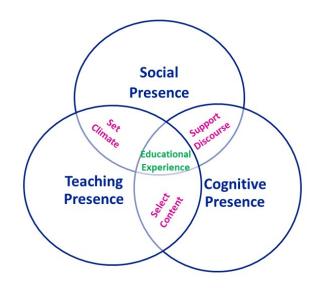
Cognitive Presence describes the extent to which students can construct and confirm meaning through sustained reflection and discourse; and

Teaching Presence describes the design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes.

These three types intersect in interesting ways.
Robust discussion and collaboration thrive when we pay attention to

meshing social and

cognitive presence.
We support



Adapted from Garrison, 2000.

learning with interesting readings and

resources when we mesh cognitive and teaching presence. We establish a climate of trust, fairness, inclusion, and "no dumb questions," when we mesh social and teaching presence. The model suggests we need to be there in a way that balances three functions: social, cognitive, and teaching presence.

Instructional Ideas for building presence

Based on my own experience as an online professor, here are some suggestions:

Social Presence

- Introduce yourself in a friendly and personable way, let students know why you are
 passionate about the subject matter of the course. If you aren't excited about it, why
 should they be? Let students know how and when to contact you, including whether
 appointments are needed before they telephone or text.
- Set ground rules, so no one feels they are expected to share personal details or to go
 outside their comfort zones.
- If you use a <u>videoconference</u> meeting for your class, allow for a time-limited check in at the beginning of the class. If the class is large, use break-out rooms so students can talk with 1 or 2 others.
- Use collaborative and small-group projects so students have opportunities to get acquainted with their peers. If the class size is large, consider breaking it into smaller discussion sections.
- Create a buddy system. Not necessarily teamwork for academic projects a student buddy system for keeping tabs of how each other is coping. Let students know that if there is an issue of great concern, they should bring it to your attention.
- Make time for 1-1 or small-group meetings, and/or offer open office hours.

Teaching Presence

- Expect originality.
- Set clear expectations and assessment protocols. Let students know what they can expect of you, as well as what you expect of them.
- Vary synchronous and asynchronous, active and reflective learning activities.
- Depending on the subject matter of the course, tie in current events in the world, or the field of study. Is there a relevant historical parallel to read about and discuss? Are there people students could interview to gain new perspectives? Are there events held online that they could observe and critique?

Use <u>service-learning</u> to engage students in something positive that allows them to apply
what they are learning. Find meaningful ways students can help people or organizations
in their communities – and <u>discuss</u> what they learn from their actions.

Cognitive Presence

- Share your own research or professional experiences with the field of study to demonstrate meaning-making.
- Increase frequency and quality of feedback. If you typically give quizzes or tests, add in narrative assignments that allow you to gain more insight into the student's learning.
- Add a <u>journaling</u> component to assignments. In addition to writing about course subject matter, readings, and so on, add a prompt that asks students to reflect on their current situation.
- Instead of, or in addition to, assigning work students submit in writing, ask for creative online presentations with time for constructive peer comments.

Read more about the Community of Inquiry Model in SAGE Journals:

- Lajoie, S. P., Garcia, B., Berdugo, G., MÁrquez, L., Espíndola, S., & Nakamura, C. (2006). The creation of virtual and face-to-face learning communities: An international collaboration experience. *Journal of Educational Computing Research*, *35*(2), 163–180. https://doi.org/10.2190/1G77-3371-K225-7840
- Lee, R., & Faulkner, M. (2011). The roles of extrinsic factors in a community of inquiry model of E-Learning. *E-Learning and Digital Media*, 8(1), 58–67.

 https://doi.org/10.2304/elea.2011.8.1.58 Also see a special issue on the Community of Inquiry Model in the E-Learning and Digital Media journal: Volume 11 Issue 1, February 2014.
- Liu, C.-J., & Yang, S. C. (2014). Using the community of inquiry model to investigate students' knowledge construction in asynchronous online discussions. *Journal of Educational Computing Research*, *51*(3), 327–354. https://doi.org/10.2190/EC.51.3.d

Teaching Research Methods Using Collaborative Learning or E-Learning

Social and cognitive presence intersect when we encourage students to collaborate. How do future researchers learn the skills they will need to succeed in academic research and related professional work, where collaborative and interdisciplinary teamwork are increasingly expected? One way is by using collaborative learning methods that allow students to gain the experience of working together to conduct, analyze, and/or write about research while still in the classroom. Let's look for insights from researchers whose work can be accessed in SRM.

Learn how to plan the project with collaborative partners.

In the SRM video "Collaborative Research: Enterprising Science Project," Laura Archer describes two challenges. The first involves project timing and the second relates to communication.

I don't think anyone would pretend that collaborative research is easy. I think it takes more time. We need to spend a long time in the project learning to understand each other, and understand where we're coming from – the different languages that we both use, the different constraints and demands that we have on us, and different motivations in the project as well.

Collaborative research in the classroom requires extra time so students have a chance to get acquainted and plan key steps of the project. In the process, they need time to determine a common language for articulating goals and describing their shared work. As Archer observed, sometimes when we are crossing disciplines or cultures, the words we use to describe phenomena are different. To avoid confusion, it is valuable to identify these differences and agree to definitions for essential terms that will be used in the project.

Learn to use communication technologies for a collaborative purpose.

On a practical level, plans for how and when to communicate are central to any collaboration agreement. If the collaborative partners are not co-located, and some or all of the communication occurs online, is valuable to think about how the partners will use synchronous and asynchronous exchanges. When is it important to sit down and meet in person or by video chat, and when is it possible to get things done by exchanging drafts through email or shared folders?

The case "Coordinating Diverse Research Practices Using Digital Research Notebooks: A Case Study in Science Education" offers a way to use commonly available tools such as Microsoft OneNote in collaborative research assignments.

With the digital research notebook (DRN), our work became collaborative from the start. Instead of working individually in separate Word files, each of us worked in different pages in the same notebook section.

Professors sometimes assume that students, especially those who are digital natives, are comfortable with electronic communications. Nevertheless, students' digital literacy levels might not be adequate for scholarly work. Steps involved with collaborative research and preparation for a joint report benefit from familiarity with technologies that are somewhat different from those used for social exchanges. Assignments that use tools such as the digital research notebook can help to prepare students for complex projects that include multiple stages or different types of multimedia data.

Learn how to negotiate power.

Two SAGE Research Methods Cases highlight the importance of being able to let go and enable others to contribute. In the case "Collaborative Visual Ethnography: Practical Issues in Cross-Cultural Research," the researchers learned a lesson early in the project that informed the way they carried out the rest of the study:

As I watched the villagers at work on their films, I realised that in handing over the cameras to the villagers I had also handed over the focus and means of production of the research. I saw quickly the value in letting go of the reins. Following instead of directing gave me access to parts of village life that would have taken months to reveal and record had I controlled the production process.

Similarly, the authors of the case "Youth-Led Participatory Action Research: A Collaborative Methodology for Health, Education, and Social Change" pointed to the importance of including young participants as fully engaged co-researchers. The authors explained how the training they provided to youth allowed them to take a more extensive role than is typical in such studies.

[S]tudent co-researchers supported the partnership with undeniable enthusiasm and a unique community perspective that would not have been available otherwise. It is never easy to let go of the reins, or to allow inexperienced people to take an important part in a research project where success or failure might have a significant academic or career impact. But as these examples demonstrate, the quality of the research was greatly improved by a more collaborative approach.

Classroom research projects may or may not involve participants in the ways shown by these cases. However, the same principles apply to group efforts that include stronger, more experienced students who are working in a group with others they perceive as less able to add value to the project.

Students often find this aspect of collaboration to be particularly difficult. This is especially true when students are accustomed to having their academic performance assessed based on individual achievement. Instructors who want to prepare students for collaborative research are wise to develop assessment strategies that reward students for the achievements of the group in addition to developing assessments for individual student contributions. Professors

can also consider their own roles in the situations and provide coaching or just-in-time training on research skills.

Navigating SAGE Research Methods

SAGE Research Methods is a library within your library. Finding what you need can be easy when you learn how resources are organized. Log into SRM and you will see many navigation options. Let's start with search options on the top page, and then look at other options and community features. You are familiar with the search interface for conventional databases-usually a basic box with an option to add search parameters. Similarly, on the SRM opening page you can enter keywords, terms, or titles and get started that way.



If you click the *Advanced* button, you will see a variety of choices that allow you to narrow or broaden your search. You also have the chance to search within or across disciplines, and to specify the type(s) of resources that interest you. (More about searching by discipline in the next section.)

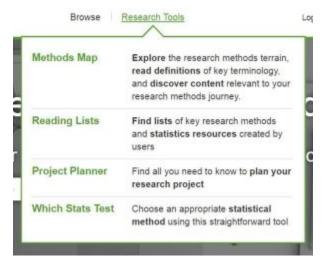
Let's go back to the top page because there are other search routes you can take. At the top of the page you will find two buttons: *Browse*, or *Research tools*. Click *Browse*, and you will be presented with three categories: topic, discipline, or content type. Click *Research Tools*, and you can choose from four unique SRM tools: the Methods Map, Reading Lists, Project Planner, and Which Stats Test. We'll explore each of these in future posts.

The front page also gives you a chance to search by your own research need. Your answer to

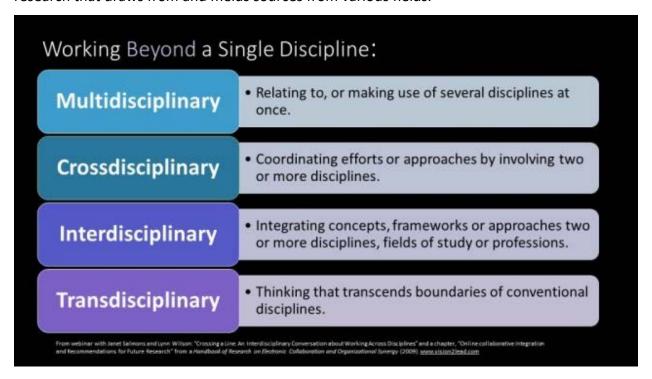
the question "What do you want to do?" will take you into distinct collections of books, videos, case studies, or data sets.

Navigating SAGE Research Methods by Discipline

Sometimes we want to delve into the literature within a discipline. We need to understand respected approaches for designing and conducting studies, because we hope our research will fit and contribute. Other times we want



to get a sense of how particular methodology or method is used by researchers in other disciplines. We might want to expand the reach of our work, so we want to frame it in a way that will be broadly understood and accepted. Or perhaps we want to conduct interdisciplinary research that draws from and melds sources from various fields.



You can hone your SAGE Research Methods search to serve any of these purposes. Disciplinary

options are available in several places on SRM, and you can readily add or subtract disciplines in the middle of your inquiry.

At the top of the opening page you will see the button called *Browse*. When you click it, you will see a list of disciplines from which you can select. Also, on the front page, next to the main search box, click the Advanced Search option. From this click you also have the ability to choose all disciplines, or to select one or more from the list. Once your search is in progress, you will see a

Browse Research Tools				
Discipline				
Anthropology	Marketing			
Business and Management	Mathematics			
Communication and Media Studies	Medicine			
Computer Science	Nursing			
Counseling and Psychotherapy	Political Science and International Relations			
Criminology and Criminal Justice Economics	Psychology			
Education	Science			
Engineering	Social Policy and Public Policy			
Geography	Social Work			
Health	Sociology			
History	Technology			

menu bar on the right that allows you to narrow or broaden your exploration by content type, discipline, and/or publication date.

1. How does the same search yield different results based on discipline?

I was curious to see how results from the same keyword would vary by discipline. I searched for "visual methods" and started checking the boxes for anthropology and marketing.

First, let's look at resources filtered for the discipline of anthropology. The most relevant resources included handbooks, texts, videos and case studies. Some of these materials would serve researchers in anthropology but would certainly be useful to researchers elsewhere. For example, the value of *The SAGE Handbook of Visual Research Methods* (2011), Pink's *Advances in Visual Methodology* (2012) or video clips by Gillian Rose (2017) is not limited to those with an interest in anthropology. Other sources such as *Handbook of Critical and Indigenous Methodologies* (2008) or the case study "Structural and Poststructural Analysis of Visual Documentation: An Approach to Studying Photographs" (2015) are more relevant to this specific field.

With the same search terms filtered for the marketing discipline, the resource list again

included both general and specific resources. For example, a chapter titled "Visual Materials and Methods" in a book titled *Qualitative Marketing Research* (Moisander & Valtonen, 2006) is a close match, while a chapter like "Visuality in Social Media: Researching Images, Circulations And Practices" (Hand, 2016) might be of interest to other kinds of researchers who want to study images.



Assignment and Discussion Idea: Ask your students to try it! Ask them

to dig deeply within their own field and venture out to see whether they can learn something new from researchers whose work is categorized in another discipline. Compare and contrast the sources and discuss your observations.

Navigate with a Map on SRM

SRM also offers a visual search tool that allows for an iterative style of exploration.

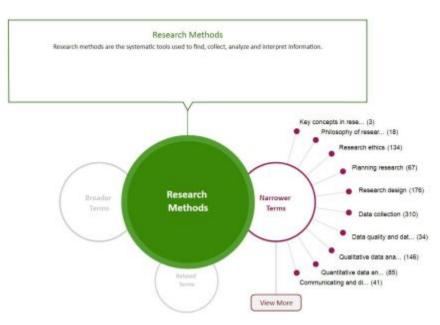


On the top of the SRM page, you will see two options: *Browse* and *Search Tools*.

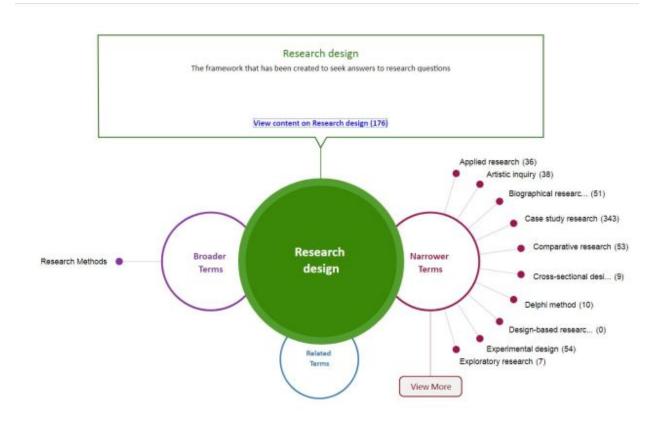
The *Browse* button allows you to search by topic, discipline, or product type. One choice under the *Search Tools* button is *Methods Map*.

When we are searching for resources about research, sometimes we know precisely what we are hoping to find. We choose the research approach we want to use and look for more about it, or we look for additional sources from a known author. We don't want to waste time (or get distracted); we want to quickly get to the source. Other times we are less certain and want to be able to compare and contrast potential research directions. When we are in that inquisitive state, we can organize our search with Methods Maps.

When you click the Methods Map button, you start with the broadest term: Research Methods. From here, you can choose what direction to take to narrow your search. You can click Narrower Terms, or you can click a specific term.

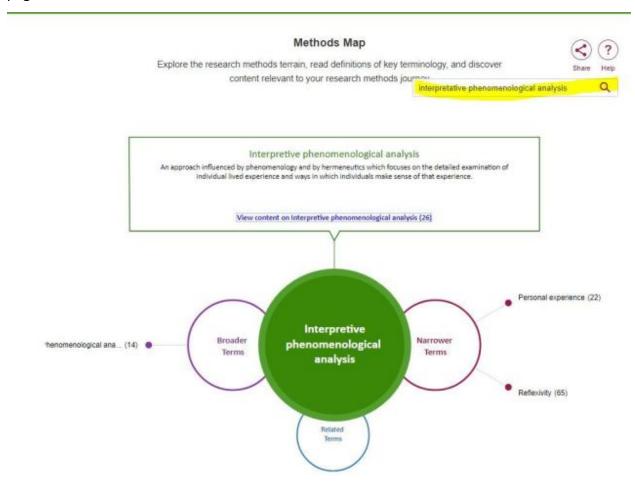


If you click Research Design for example, you are presented with more choices. You can dig deeper, go back to the initial *Broader Term*, or look for *Related Terms*. At this point you might want to see available resources. If so, click "View content on Research Design," which will bring you to a list of materials.



Create a Custom Map

If you want to map a specific area, instead of the general Research Methods starting point, simply enter the term into the search box on the map page.

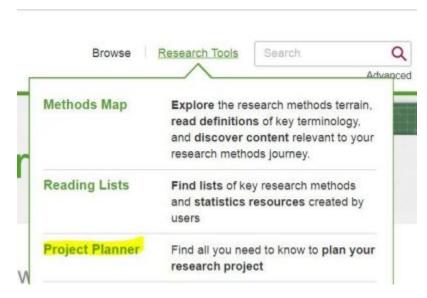


Once you have generated a list of source materials, you can narrow further by using the menu on the right. It allows you to choose content type, date range, and/or discipline.

Start With a Plan: Teaching With the SRM Research Project Planner

Once you know your way around SRM, you can explore features and tools.

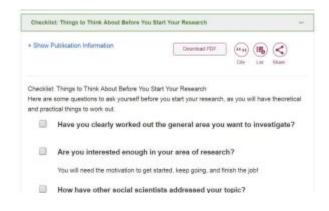
The <u>Project Planner</u> is a flexible set of materials you can use in conjunction with other proposal documents. You can find the Project Planner in the drop-down menu on the front page of SAGE Research Methods. Project Planner materials will also appear in site search results.





The <u>SAGE Project Planner</u> is a set of materials designed to help you see what needs to be included in a research planning process. When you open your Project Planner you will see a menu on the left-hand side of the screen. These buttons correspond to important stages of research design. Within each topic area you will find clear explanations, definitions of important terms, key questions, practical steps, links to other resources, and a checklist. Each section can be read online or downloaded in a PDF format.

Checklist questions can help to focus on convening meetings with your thesis or dissertation students or provide the basis for discussions with research clients or research collaborators.



Curate and Share Resources With SRM Reading Lists



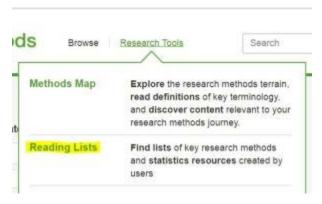
Reading Lists

Find reading lists of key research methods and statistics resources created by users. Browse all reading lists or browse by the options below.

What are "Reading Lists"? Reading Lists are a feature of the SAGE Research Methods library. This social bookmarking tool allows you to create and share lists of resources, including e-books or book chapters, articles, case studies, videos, or datasets. Users can choose to make their lists public, or to keep them private.

First, let's look at what you can do with a user-generated list, then we will look at how to create one. Now you will be ready to think about how to use Reading Lists.

Finding and Creating Reading Lists



Reading Lists posted by other users can be found under the Research Tools dropdown menu. When you click the link, you will be presented with search options. Use the search box to look for public lists.

You can also search by method or discipline.

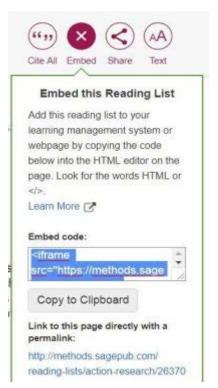


To provide an example, I will use my lists. You can find them by typing "Salmons" into the

search box. Or click this link to go to a Reading List about teaching online. You will see that I have zealously created many lists! Some are quite robust; others include just a few resources. I continue to update them



as I discover materials I want to save, categorize, and revisit. Feel free to use them. If you see an entry that interests you, click to add it to your own list.



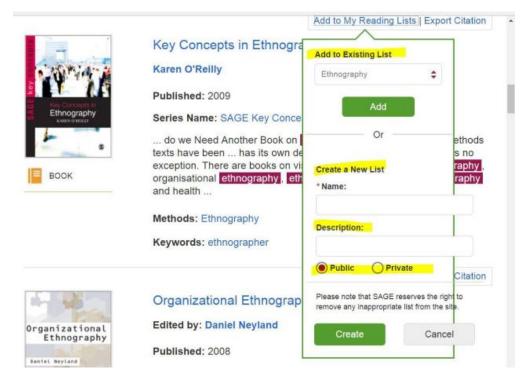
You will see additional options, including the ability to download citations for the resources in the list. You can also choose to embed the list in your online classroom or your

blog/website. The same menu gives you the option of sharing the list with colleagues, collaborative partners, or students. Under the share button you will see a link that allows you to post your list on social networking sites.



How do you create your own lists?

Start by searching SRM on a topic of your choice. Once you have located a resource you want to save in a list, click the button labeled *Add to My Reading List*. It will give you the option to create a new list. Name it, add a description, and simply click to add. If you have already created one, you can add this resource to an existing list, which you can select from the dropdown.



Public or Private?

You can decide whether your lists are public or private. If you want to allow other SRM users to benefit from your curation and have the option to share your list with students, others in your own network and/or the online world, make it public. If you are creating the list for your own reference and prefer not to share it, choose to keep it private.

Using Reading Lists With Students

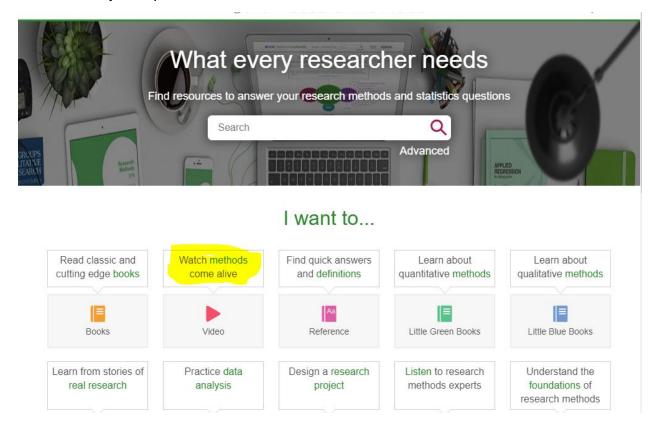
If you teach research methods or teach courses that depend on an understanding of research methods, or supervise students' research, Reading Lists can help. Here are five suggestions. Log into SRM now, so you can access the examples.

- Create a list of supplementary resources for your course. Make the list public and
 embed the link in your course learning management system, and/or share the link in the
 syllabus. For example, this list about interview research might be helpful to students
 doing an introductory course in qualitative methods.
- Create lists for each methodology, method, or research stage you teach or supervise. What are the foundations you want students to understand before they design a thesis or dissertation proposal? For example, you could say "before you craft your informed consent agreement, review sources on this list," or "if you are thinking about a qualitative dissertation, review sources on this list."
- Create lists to use for compare-and-contrast assignments. For example, this
 list contains sources about two types of ethnography, organizational and virtual. Ask
 students to review these resources and discuss similarities and differences.
- Begin the term with a methods scavenger hunt in SRM. Require students to create and share lists with their discoveries. Now all students have the benefit of multiple lists relevant to the course and can add peers' lists to their own.
- Create lists for your own research and presentations. Create private lists to collect resources to support your own work. I have private lists for presentations I am preparing, and for new writing projects in the works.

SRM Videos Bring Research Knowledge to Life

Your reading lists need not be limited to readings – you can also include videos. Research is complicated and abstract. Sometimes we just need someone to give us a clear explanation. We need someone to connect the proverbial dots, share real-world experiences, and help us understand complex ideas or practices. SAGE Research Methods houses a growing collection of videos that bring research, academic, and professional skills to life. Let's look at the navigation options, so you can quickly identify the videos that will be relevant to your students and your

own research journey.



First, when you log in you will see the video portal on the top page. By clicking the <u>link</u> you will see a number of navigation options. You can see the videos displayed in four collections:

- SAGE Research Methods Video
- Practical Research and Academic Skills
- Data Science, Big Data Analytics, and Digital Methods
- Market Research

Alternatively, you can refine your search by method, discipline, or video type. The video type link will present options that can help you get to factual definitions or videos with procedural focus such as the tutorials. If you are looking for videos with a conceptual or metacognitive discussion, choose interviews or lectures. You can also search by name or keyword, or simply browse the whole collection.

Browse Videos

SAGE Research Methods Video includes hours of tutorials, interviews, video case studies, and mini-documentaries covering the entire research process. Find videos made with expert researchers from leading research institutions, your favorite SAGE authors, great teachers and more. Browse all videos or browse by the options below.

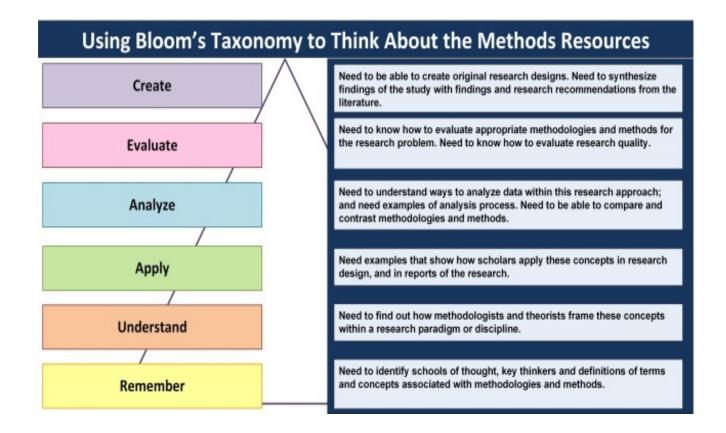
Browse by Method	Browse by Discipline	Browse by Video Type
Marketing research	Data visualization	Qualitative data collection
Survey research	Research design	Machine learning
R statistical package	Data management	View More
Practical skills	Computational social science	

Bridge Knowledge Gaps with Videos

Let's look at a way to use this approach for matching video resources to students' research readiness. "Build a cognitive bridge between where a student is coming from, and where they need to go." This characteristic of meaningful learning, drilled into me in grad school, seems useful here. Students with course projects, theses, or dissertations to complete come to us with some level of prior knowledge of research. How can we quickly assess where they are coming from, so we can recommend resources that will help build a cognitive bridge to where they need to go?

Bloom's Taxonomy was developed in the 1950s and refined in 2000 as a framework for planning and assessing learning (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956). The Taxonomy for the Cognitive Domain laid out a progressively more complex levels of thinking. Inter-relationships between these levels allow us to see ways that students can bridge from acquiring basic understanding of a subject to being able to evaluate it, then to create new solutions or interpretations. In 2000, some of the original team worked with contemporary educators to update the taxonomy, articulating the levels using active verbs, and differentiating types of knowledge (Anderson, Bloom, Krathwohl, & Airasian, 2000).

We can use this taxonomy to think about students' research readiness, and more precisely match available resources.



Student and novice researchers need the foundations associated with the *Remember* and *Understand* before they can *Apply* these principles in an assignment or *Evaluate* the methodologies and methods from which to choose for their own research. At the highest level, they use what they have learned to create the research design and create new contributions to the literature and practice.

Using Bloom's Taxonomy to think through our search strategy, we can also think about student needs in terms of the *type* of knowledge we want them to develop. Do they need factual information and definitions, concepts or theories, how-to procedures, or to understand their roles in a larger scholarly context?

Factual

Basic terminology, major ideas and thinkers in the field.

Conceptual

Interrelated principles, generalizations & theories.

Procedural

How-to methods.

Metacognitive

Strategic & self-knowledge, role as a researcher.

Knowledge Domains from the revised Bloom's Taxonomy (Anderson et al., 2000)

How can I put these ideas into practice?

Let's say I am working with a student who is thinking about designing a qualitative study. She could first look at a broad definition: <u>Jessica Nina Lester Defines Qualitative Inquiry</u>. Next, she could look at <u>Introduction to Qualitative Research Methods</u> with Denise Clark Pope and <u>Types</u>

of Qualitative Research with John Creswell. To better understand design procedures, How should one go about designing a qualitative research project? offers practical help. The student could dig deeper into metacognitive thinking about research and the role of the researcher with Sharlene Hesse-Biber Reflects on the Research Process,

Segment 1: Introduction to Qualitative Research Methods



including "Behind the Scenes" Research Examples. After getting acquainted with the perspectives of these presenters, the student can find their articles, texts, and chapters to read. Here are some more examples:

A student with questions about basic concepts at the "Remember level," might benefit from viewing:

- Top Tips for First Time Researchers
- What Are the Practical Steps for Doing a Research Project?
- Core Skills for New Researchers: How Curiosity Drives the Research Process

The procedures associated with organization and writing might also be helpful:

- Academic Writing: How to Get Started and Keep Going
- How Do I Keep a Bibliography?
- So What Does a Learning Journal Do?

At the stage where they need to apply research ideas in their designs, students might like:

- Core Skills for New Researchers: How to Develop a Good Research Question
- Top Tip: Let Your Research Question Guide Your Method
- Top Tip: Encouraging Engagement With Your Research

If they are at the point where they need to analyze data, suggest:

- Some Features of Data
- Let's Tear Evidence Into Shreds
- The Importance of Challenging Assumptions

A student who needs to evaluate literature or research options might learn from:

- Core Skills for New Researchers: How to Solve Problems & Make Decisions
- Mike Wallace & Alison Wray Discuss Critical Reading
- What Is Critical Thinking?

Students who are ready to create ways to present what they have learned could take learn from:

- How to Find Your Voice as a Writer
- Writing & Publishing for Your Audience
- How Do I Present My Research at a Conference?

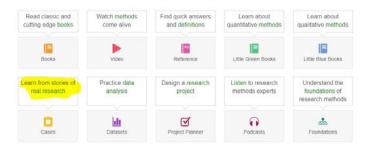
Bloom's Taxonomy allows us to pose the kinds of questions that will help us quickly assess those resources that will allow students to take the important steps and bridge from where they are currently to a place where they will become knowledgeable and creative. While many types of resources will be essential to the research journey, videos provide a personal and engaging way to learn from others' insights and experiences.

A Case for Teaching Methods

Another way to create active online learning is through teaching with case studies. Case



I want to...

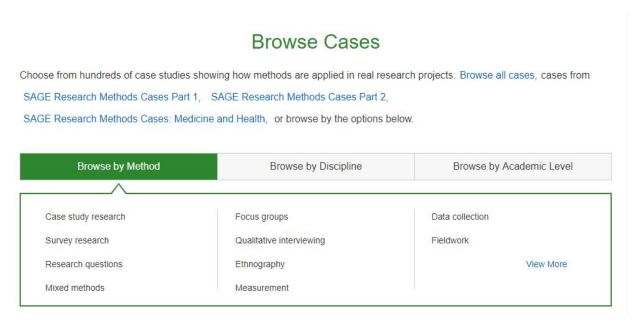


methods of teaching are used in many fields because they bring real-world dilemmas and decision-making into the classroom. Cases lend themselves to problem-based and collaborative learning.

SAGE Research Methods includes an extensive, multi-disciplinary collection of cases that illustrate how studies are

conducted – warts and all. Unlike journal articles, research cases describe decision-making, and in-the-moment course corrections when the pristine research design encounters the muddy real world. Look on the home page for SAGE Research Methods or use the search function to locate research cases.

You can browse the case collection by method, discipline, or academic level to find the ones that best fit your course or field of study.



Use the tips below to design active-learning assignments with cases that enable students to prepare for their own research experiences.

Use Research Cases to Teach Methods

As a methodologist, I have a shelf full of great qualitative research methods texts. They cover every phase of the process – from conceptualizing and designing the study, to collecting the data, analyzing it, and writing up the report. But if I am a new researcher, or want to try a new research approach, I might still have some questions about how to put the pieces together.



How should these design pieces be fit together into a coherent research proposal I can defend to those who must approve it? I'd want to know about the real experience – what is it like to actually *do* research? What are my options if/when something goes wrong, when my pristine design hits the messy real

world? Research cases offer one way to gain a holistic and realistic view of the empirical process and allow us to learn from the trials and errors of successful researchers.

Cases offer the potential for active, engaged, problem-based learning. Problem-based learning, or PBL, is defined as "a student-centered instructional approach that is derived from constructivist epistemology. It is based upon ill-structured real-world problems with the goal of strengthening and developing critical thinking and problem-solving skills in learners" (Nelson, 2010). Case studies encapsulate one or more problems. They offer a snapshot of a dilemma, situation, or process at a specific point in time. Case methods involve the process of systematically dissecting a problem from perspectives of the players and its surrounding circumstances, then conducting further research, proposing, analyzing, and selecting solutions.

Let's walk through a systematic case analysis we could use in a research methods course. Here are two examples that adapt an <u>8-step process</u>. Select the steps that fit your course and timeline. Taken together, these steps represent a comprehensive case analysis that could be completed as an individual or group project. Alternatively, one or more steps of the process could be adapted for single assignments or class discussions.

The following ideas might spur your imagination about other assignment opportunities that will fit into a course or seminar. Select research cases in your field and/or cases that represent the methodology and methods you teach.

The first case we will explore is: "Biographical Interviewing: The Case of Non-Traditional Students in Higher Education" (Bron & Thunborg, 2015). The second case is: "Using the Survey Method to Assess the Socioeconomic Status of Stakeholder Households Living Within the Project Zone for the Lower Zambezi REDD+ Project" (Wamunyima, 2020).

Biographical Interviewing: The Case of Non-Traditional Students in Higher Education

1. Understand the research approach.

Invite students to begin by identifying the research approach, the theoretical frameworks, data collection and analysis methods used in the case. In the case by Bron and Thunborg (2015), research questions related to the experiences of non-traditional students in higher education, and factors associated with retention. This case uses a qualitative approach and biographical interview.

Assign additional reading to help students build an understanding of the approaches used in the case. The case authors provided a list of some supplementary readings and students can also read relevant course texts. They might conduct library research to look for books or articles about similar approaches such as life history interviews or narrative methods.

In a discussion or a written assignment, ask students to summarize key points from this initial stage to create a context for the next stage of analysis.

2. State the problem.

Ask students to identify a problem or obstacle faced by the case author in conducting the research. Then, they can determine whether the problem relates to research design, research site, case author preparation or skills, research approach, or something outside the researcher's control.

One problem Bron and Thunborg (2015) discussed was that sometimes the participants "got stuck" and stopped talking (p. 7). The researchers described the strategies they used to prompt and encourage participants when this happened.

3. Broaden the inquiry; research the problem.

Ask students to compare and contrast the identified problem with issues researchers have described in other studies, texts, and readings for this course: Is the problem widespread or limited to the approach portrayed in the case? Does the problem represent larger issues that

other researchers need to understand and be prepared to address? Dig deeper into the case, including "Practical Lessons" Bron and Thunborg (2015) discussed on page 11.

Using resources identified in the first stage of this process, students should look for other examples where interview researchers encountered reluctant or nonresponsive participants. In discussions or written assignments, they can compare and contrast the ways Bron and Thunborg (2015) handled this problem with other possible tactics.

For an experiential activity, students can practice interviewing each other and developing ways to prompt interviewees. They could use the question central to the biographical interview study: "Would you please tell us how it happened that you began your study at [your institution]?" After the practice interviews, debrief as a class and highlight successful interview approaches.

4. Offer alternative solutions and approaches to the problem.

Working individually or in teams, encourage students to offer two or more alternative solutions for addressing the problem of nonresponsive or stalled participants. They can use what they've learned from reading about and discussing issues from the case, and/or practicing interview skills.

5. Evaluate each alternative.

Ask students to describe the key steps for implementation and implications for each alternative. Advise them to consider the researcher's preparation, skills and roles, characteristics of the target population, sensitivity about the research topic and/or external factors such as interview setting or timing. Once again, encourage students to utilize course texts and other resources to support their evaluative process.

6. Offer your best recommendation.

Based on their evaluations from Step 5, offer the best recommendation for Bron and Thunborg (2015) in particular, and for interview researchers generally. Recommendations should note any implications for the research design, conduct, and analysis as a whole. Recommendations could also include suggestions for teaching or training interview researchers.

7. Describe implementation.

Summarize the likely result from using the recommended approach and strategy for overcoming any obstacles. Use identified obstacles, including anxiety students express about conducting their own research, as a teachable moment and basis for further practice or study.

8. Finalize the case analysis.

The final stage of case analysis process could include submission of a paper, a class presentation, or a team demonstration of interview techniques.

If members of the class have conducted analyses of different cases, or different problems drawn from the same case, at this stage they can compare and contrast what they discovered and recommended.

The second case is:

<u>Using the Survey Method to Assess the Socioeconomic Status of Stakeholder Households</u>

Living Within the Project Zone for the Lower Zambezi REDD+ Project

A team approach is outlined in this example.

1. Understand the research approach.

Invite the team of students to begin by identifying the research approach, the theoretical frameworks, data collection and analysis methods used in the case. The case by Wamunyima uses a quantitative survey method.

Ask team members to identify at least one additional reading that could help them build an understanding of the approaches used in the case. The case authors provided a list of further readings in addition to the reference list. Share resources with team members.

Alternatively, assign a literature search exercise and ask students to work together to generate/create an annotated bibliography on a prescribed number of sources about methods used in this case.

Depending on time and other course activities, the team could document this stage and move to the next step or submit deliverables. Deliverables could include a reference list or annotated bibliography that represents the team's library research. Or, ask the team to give a 10-minute presentation about the research approach. In an online class, they could present using a web conference meeting space, or record the presentation and share in an asynchronous discussion forum.

2. State the problem.

The team identifies the research problem central to the study. Additionally, identify a problem or obstacle faced by the case author in conducting the research.

Students can discuss or write about how this problem (or other identified problems) relates to research design, research site, case author preparation or skills, research approach, or something outside the researcher's control. Is the problem widespread or limited to the situations portrayed in the case? Does the problem represent larger issues that other researchers need to understand and be prepared to address?

3. Broaden the inquiry; research the problem.

Using resources identified in step 1, students can look for other examples where researchers needed to understand implications of socioeconomic status. In discussions or written

assignments, team members can compare and contrast the ways other researchers have conducted surveys or used other methods to study these issues.

4. Offer alternative solutions and approaches to the problem.

What other methodologies and methods could Wamunyima have used to study the problem? Ask the team to offer two or more alternative solutions for conducting research about this problem. How could she have studied it using qualitative or mixed methods?

5. Evaluate each alternative.

Ask the team to describe the key steps for research design and conduct using one or more of the alternative methodologies and methods they identified, and to consider implications for each alternative.

Recommend that they evaluate each alternative in regard to the researcher's skills and roles, characteristics of the target population, sensitivity about the research topic and/or external factors such as research setting or access to participants. Once again, encourage students to utilize course texts and other resources to support their evaluative process.

Compare and contrast the alternative generated by the team with the methods Wamunyima used in this case.

6. Offer your best recommendation.

Based on evaluations completed in Step 5, offer the best recommendation for Wamunyima to use in another study of this problem.

7. Describe implementation.

Summarize the likely result from using an alternative research approach and suggest strategies for overcoming any obstacles. Note any implications for the research design, conduct, analysis, and interpretation.

8. Finalize the case analysis.

The final stage of case analysis process could include a written report of their analysis, class presentation, or a team demonstration of survey or alternative methods of data collection and analysis.

These examples offer ways to develop a series of assignments, individual research papers, or group projects, based on an active analysis of a research case. The case approach can be used in an online, on-ground, or blended learning course. Steps can be customized to instructional needs depending on the level of the program, and whether students are trying to simply grasp basic research concepts or preparing to conduct their own inquiries.

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Dr. Janet Salmons is a free-range scholar, writer, coach, and artist through Vision2Lead. She serves as the Methods Guru for SAGE Publications' research community, www.MethodSpace.com. Areas of interest include emerging research methods, and teaching and collaborative learning in the digital age. Her most recent books are: *Reframing and Rethinking Collaboration in Higher Education and Beyond: A Practical Guide for Doctoral Students and Early Career Researchers with Narelle Lemon (in press), *Publishing from your Doctoral Research: Create and Use a Publication Strategy with Helen Kara (2020), *Learning to Collaborate, Collaborating to Learn (2019), *Find the Theory in Your Research (2019), *Getting Data Online" (2019), and *Doing Qualitative Research Online (2016). *Janet is the Methods Guru and lead writer for SAGE *Methodspace*. She is an honorary member of the TAA Council of Fellows (2019) and received the Mike Keedy Award (2018) in recognition of enduring service to authors. She lives and works in Boulder, Colorado.