

Suggested Readings

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Web Links

- APA Style <http://apastyle.apa.org/>
- The Chicago Manual of Style Online <http://www.chicagomanualofstyle.org/home.html>
- Education Portal: Glossary of Master's Degree Programs http://education-portal.com/article_directory/Glossary_of_Master's_Degree_Programs.html
- Modern Language Association (MLA) <http://www.mla.org/>
- The Princeton Review: Graduate research <http://www.princetonreview.com/graduate-school.aspx>

2

Selecting a Research Topic

Important Factors to Consider When Selecting a Topic	23
Personal Significance	23
Critical Issues in the Field	24
Existing Research Literature	25
Search Engines	26
Electronic Databases	27
Ethical Considerations	30
How to Narrow and Refocus Your Topic	30
Feasibility	31
Accessibility	32
Time and Resources	33
Developing Answerable Research Questions	34
Answerable Questions	34
Defining Terms	35
Creating a Realistic Timeline	37
Time Management	39
Reserving Time	40
Chunking Method	40
Summary	42
Resources	43

(Continued)

(Continued)

Common Obstacles and Practical Solutions	43
Reflection/Discussion Questions	43
Try It Exercises	44
Key Terms	45
Suggested Readings	45
Web Link	45

Writing is making sense of life. You work your whole life and perhaps you've made sense of one small area.

—Nadine Gordimer

Now that I have covered the basic overview of the master's thesis, it is time to start the work! As in most writing projects, the first step is to select a topic. This is often a difficult task because there are many interesting unanswered research questions to study. Obviously, the topic that you choose for your thesis should be important to your field or discipline. However, keep in mind that your study should address a *research problem* and *questions* that you want answered because they are important to you and you have been unable to find meaningful and validated solutions. Your research problem and question could address original research (a new question) or be a replication of a previous study. For example, if I am earning my master's degree in counseling, then I may want to study some aspect of counseling that is important to the process of counseling, the issues and problems related to counseling, or the people involved in counseling. However, I also have to focus on a research question, or a few, that my study will attempt to answer. For the counseling process, perhaps I want to find out the differences in client participation and satisfaction during group or individual therapy. For the issues or problems related to counseling, my research question could examine the differences in treatment by the therapist for men and women. Finally, for the people involved in counseling, I could research the impact of grief counseling for young children after losing a parent. Framing research questions is an important part of planning your thesis. Later, I will discuss research questions in depth.

Important Factors to Consider When Selecting a Topic

A common question asked by graduate students is, "Where do I start?" Often, students feel anxious about selecting a research problem because it is like making a long-term commitment to someone you have not met! However, selecting a research problem should not be like going on a blind date or a random act. Instead, it is a systematic process that requires time, reflective thinking, discussion, and, of course, research. You want to select a problem that has significance and is in need of attention. You should also select a problem that you can research within the time that is available for your thesis. I will discuss four important factors to consider when selecting a research problem: (a) personal significance, (b) critical issues in the field, (c) the existing research literature, and (d) ethical considerations.

Personal Significance

The first place to look for a research topic is within. The research problem that you select should be first and foremost meaningful to you. There was a reason why you chose to enter your particular field or discipline, and hopefully you have an affinity or passion for what you are studying. This is where all the course work and experiences in your master's degree program should come in handy. Through your course work, you reviewed research and are familiar with several studies. Some of these studies may have caused you to think about additional research problems. Perhaps there was a topic, theory, or problem from a course, reading, something an instructor said, or fieldwork experience that intrigued you. Keep in mind that your research study and thesis may take one to two years to complete, so the topic should be meaningful or something you are passionate about since you will be devoting a lot of time and energy to it. Selecting a topic based on personal interests will also keep you motivated to continue and persevere, especially when you feel like quitting (which will be often).

When I pursued my master's degree, I was having problems selecting a topic because there were so many educational problems that I was interested in. Most of them were broad, societal issues that were important for students with disabilities, but none were within my reach. When I finally sat down with my chairperson and rattled off 10 ideas, he said, "What is important to you? Where do you come from? Who can you give a voice to that so few others can?" I was stunned. Important to me? Why would anyone want to hear about what is important to me? I replied, "Well, there are a lot of recent Vietnamese refugees who have children with disabilities who emigrate to the United States, and I wonder if they know much

about special education services since they do not speak the language and there are few special education services in Vietnam.” Thirty minutes later, I walked out of his office with a research problem and questions in hand and excitement in my heart! I had just been given permission to conduct a research study that was personal and meaningful to me. Conducting a study on a topic that was personally significant changed my entire perspective about the process. Instead of viewing the data collection process as a burden, I was excited to meet different families and was truly interested in their perspectives and experiences related to obtaining special education services for their children with disabilities. When I completed my study and presented the findings at a national conference, I was absolutely amazed by the roomful of people who wanted to hear about the perspectives and stories of refugee Vietnamese families with children with disabilities—I guess I was not the only one who thought this was important after all. Thus, the lessons learned here are to select a topic that you are passionate about and get guidance from your chairperson who will help you focus on the critical issues. After all, you cannot go wrong if you follow your heart (well, most of the time).

Critical Issues in the Field

The second place to look for a research topic is right in your own backyard. In other words, what problems or issues are you and your colleagues currently facing in the immediate environment, whether it is at a school, classroom, clinic, juvenile detention center, foster home, business, or nonprofit organization? Often, the research opportunity “calls” to you because it is an issue or problem that you have been grappling with and need some help to find solutions. For example, maybe you are interested in finding out why so few people promoted to the manager or director level at your nonprofit organization are female or people of color. At a school setting, maybe you are concerned that the level of bullying has increased over the past few years. Perhaps you are interested in the transition process for young adults who “age out” of the foster care system at 18.

If you are not sure about the problematic issues in your field, a good idea is to talk to your colleagues, administrators, and your chairperson. They will have a plethora of ideas, and it is always helpful to bounce your ideas off another person, especially someone who is familiar with the issues in the field. The research problem could be something that has a direct relationship and implication to what you do or see in your professional setting. However, keep in mind that the goal is to focus on one problem, not all the problems in your field (or obtain world peace).

Existing Research Literature

A third way to find a research topic is by doing good, old-fashioned research of the literature. Conducting research through the Internet or at the library is often a good method of finding a topic because it gives you a sense of the broad and critical issues in your field. This is very important because your study should make a contribution to the research literature. As is the case with most research studies, you want to be able to add to the existing knowledge base in your field. In other words, “A personal concern must also be a concern for the larger academic community” (Machi & McEvoy, 2012, p. 15). Conducting research gives you a general sense of what studies have already been completed, the “best practices,” and the gaps that still remain. Based on your findings, you may choose to replicate an existing study, implement a previously validated practice with a new population, or conduct a study that fills one of the gaps in your field.

An often overlooked resource for existing research is national and government reports. These reports are typically based on research studies that were funded by grants and are published in many different fields and disciplines. National and government reports are a good place to start your research because they are indicators of the major issues and problems in a particular area. For example, the Office of Justice Programs within the U.S. Department of Justice published a report on the effects of exposure to intimate partner violence on youth's interpersonal violence, drug use, and internalizing symptoms (e.g., depression, anxiety, withdrawal, insomnia) (Wright, Fagan, & Crittenden, 2011). The report has implications for further research and intervention related to the longitudinal patterns of youth's interpersonal violence, drug use, and internalizing symptoms across neighborhoods, gender, and age groups. This report points to many research problems that could have a significant impact on the field. Advantages of looking at national and government reports is that they are usually readily available, free to the public, and provide a broad overview of the issues and problems in a particular area.

The process of conducting research of the literature has changed dramatically over the past 15 years. When I conducted research for my master's thesis, I had to actually walk into the library (yes, in the snow), first locate the books and periodicals through the card catalog, then find and take books and periodicals off the shelves, and finally bring rolls of nickels and dimes to feed the copy machine. Sometimes I had to figure out how to use and make a copy from the microfiche! Now, with modern technology, conducting research of the literature involves sitting comfortably in front of your home or library's computer in a plush chair with a cup of coffee and a half-dozen donuts.

Search engines. Through the Internet, there are many available search engines to help you with your research of the literature. A search engine is a computer system where information is stored and organized for easy retrieval. The most common search engines search for information on the World Wide Web through the Internet. However, when searching the Internet, you want to make sure that your research is guided rather than general. **Guided research** is setting specific parameters (e.g., date, author, and subject) around your search to narrow the pool of resources and results. This helps you avoid reading thousands of article abstracts. One place to start your research is Google Scholar (<http://scholar.google.com>). This search engine will locate thousands of research articles in many discipline areas in less than a few seconds. To narrow your search, you should use the Advanced Scholar Search. For example, pretend I want to conduct a study on dyslexia. When I typed "dyslexia" into Google Scholar and clicked on the magnifying glass icon (or hit enter) to search, I retrieved over 112,000 articles (see Figure 2.1 for Google Scholar search screen)! Definitely need to do an Advanced Scholar Search. In the "modern" look for Google Scholar, this search box does not automatically appear. You need to bring the cursor to the right side of the search box and click on the little arrow for the Advanced Scholar Search box to appear (see Figure 2.2 for Advanced Scholar Search screen). In the Advanced Scholar Search, you can find articles about a topic using specific search terms and where they appear, and by author, publication, or date. When I used the Advanced Scholar Search and asked for articles where "dyslexia" is "in the title,"

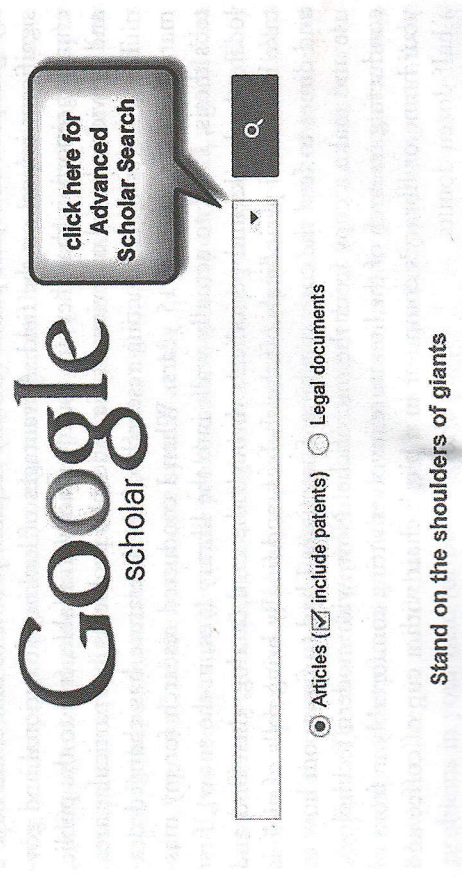


Figure 2.1. Search engine Google Scholar search screen.

Google Scholar

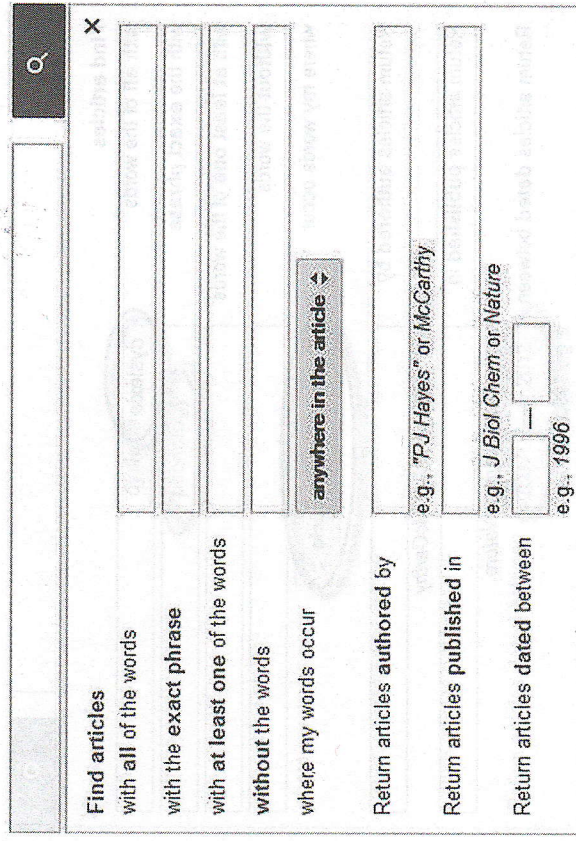


Figure 2.2. Advanced Scholar Search screen in Google Scholar.

I retrieved 9,240 articles (see Figure 2.3 for Advanced Scholar Search screen using title of the article). I further narrowed my search by putting a five-year limit on the dates and retrieved 2,150 articles. Finally, I added "phonology" in the "exact phrase" box and guess what—I only have to read 18 articles (see Figure 2.4 for Advanced Scholar Search screen using exact phrase and date limits). That is quite a big difference from the 112,000 that I started with! Narrowing your search fields and conducting a guided search will help you sort through the information and cull out the research that is important, but not specific enough to your research problem. Your chairperson is a good resource if you need help shaping your search terms to conduct the guided search. A 15-minute meeting with your chairperson could save you hours and hours of being lost in cyberspace.

Electronic databases. Searching through electronic databases is another method to find a potential research topic. An electronic database is an

Google

scholar

Find articles with all of the words

with the exact phrase

with at least one of the words

without the words where my words occur

Return articles authored by

Return articles published in

Return articles dated between

Figure 2.3. Advanced Scholar Search screen using the title of the article.

electronic collection of information (e.g., books, journal articles, reference materials) where an individual can research and retrieve resources.

Electronic databases can be interdisciplinary or organized around a particular subject area or field. In electronic databases, you can find citations and summaries to journal and newspaper articles, dissertations and theses, books and book chapters, technical and government reports, and tests and measures related to your field. Sometimes, if you are lucky, you can even get the full article from the database (that always feels like winning the lottery!). The library at your institution subscribes to a variety of electronic databases, and as an enrolled student, you may access the databases for free. Typically, you can search these databases by subject or alphabetically. For example, PsycINFO (<http://www.apa.org/psycinfo>) is a very popular and helpful database that has resources related to psychology and related fields such as nursing, sociology, education, linguistics, anthropology, business, and law.

Google

scholar

Find articles with all of the words

with the exact phrase

with at least one of the words

without the words where my words occur

Return articles authored by

Return articles published in

Return articles dated between

Figure 2.4. Advanced Scholar Search screen with exact phrase and date limits.

If you do not have access to your institution's library, there are other electronic databases that are free to the public although some of them may charge a small fee for their articles. For example, Education Resources Information Center (ERIC) is a huge database related to education that contains over 1.2 million citations, abstracts, digests, and full-text articles from 1966 to the present. ERIC is sponsored by the U.S. Department of Education, Institute of Education Sciences (<http://www.eric.ed.gov>), and is updated regularly. Once you enter the electronic database, the process is very similar to a typical search engine. Again, you will want to conduct a guided search with set parameters in terms of topic, author, dates, and so on. However, an advantage of an electronic database over a general search engine is that most of the resources in the electronic database will be directly related to the field of study. I will discuss how to search for research through electronic databases and the Internet in more detail in Chapter 3.

Ethical Considerations

Finally, another important factor to consider when selecting a research topic is ethics. For example, a topic such as the effects of teenage smoking on heart disease may be significant to the medical field, but it would be unethical to ask a group of teenagers to smoke a pack of cigarettes for 20 years to measure the rates of heart disease (there are actual research methods that could be used to study this topic). Thus, before proceeding in selecting your topic, you should ask yourself these questions: Will my study on this topic and the methods used to answer the research question(s) jeopardize the participants' (a) physical well-being, (b) emotional well-being, (c) academic well-being, (d) economic or financial well-being, (e) spiritual well-being, (f) social well-being, or (g) privacy? If you can respond with a definitive "No" to these questions, then most likely your study will pass muster on ethical considerations. If you are unsure whether or not your study will violate an ethical consideration, do not worry; every institution of higher education requires that graduate students submit their master's thesis study proposals through the Institutional Review Board for the Protection of Human Subjects (IRBPHS) for approval *prior* to conducting the study. The IRBPHS is a group that has been formally designated by the institution to review and monitor research applications involving human subjects. I will discuss ethical considerations, the IRBPHS process, and how to write an IRBPHS proposal in more detail in Chapter 4.

How to Narrow and Refocus Your Topic

Once you have selected a potential research topic, you will probably need to narrow it down. Often, students select topics that have met the four criteria above—personally significant, critical issue in the field, contributes to the existing research, and meets ethical standards—only to discover that the topic is way too broad and outside the scope of their immediate surroundings. This can be somewhat frustrating, but fortunately there are ways to make your research study more concrete and manageable. Sometimes students will select significant problems to study, but because they did not narrow and refocus the study prior to starting, they eventually feel overwhelmed, helpless, and unmotivated, and finally quit altogether. To avoid these pitfalls, schedule an appointment with your chairperson early in the process to discuss ways to narrow your study but still keep the essence of what interests you. Investing this time at the beginning will save you time and frustration later and could make the difference between completing or not completing the thesis within the allocated time. As I often remind my students, "The 'best' master's thesis

is the one that is completed!" In addition to getting advice from your chairperson, you will also have to draw on your own personal research skills and knowledge about research methods and designs. Throughout this process, it will help to access research methods textbooks and academic journals in your field to use as references. In this section, I will discuss three factors to consider when focusing and narrowing the scope of your study: (a) feasibility, (b) accessibility, and (c) time and resources.

Feasibility

Often, students will be so excited when they find a topic of personal and professional interest that they may choose a problem that is not feasible to study. Feasibility refers to how realistic it will be to access data or participants and the time needed to complete the study. For example, the topic of study may be the perceptions of high school students on their high school exit exam for graduation in a school district, and I want to measure students' perceptions using a survey and some follow-up interviews. However, because the problem is so broad, it would require a team of experienced researchers with sizable resources to make this a feasible study to complete.

One method to increase feasibility is to limit the sample group. The sample group is the group of participants in a study. They are the group that the researcher collects data from or about. How to reduce or shape your sample group will depend heavily on your research question(s), but this is one of the best ways to make your study more feasible and manageable. For example, in the study above, rather than measure the perceptions of *all* high school students in the school district, I could study the perceptions of high school students at *one* high school within the school district. However, if it is like the public high school I went to, the sample group would be 2,400 students! That is still too large for one person to manage. One method to further reduce the sample size would be to randomly select a certain number (50) of students from each of the grade levels. This would still give me a "representative" sample of the entire school, but I would only have to manage 200 surveys rather than 2,400. Another method to reduce my sample size would be to measure the perceptions of students from *one grade level*, such as the juniors. This shows only one slice of the high school, but perhaps this is the group most affected by the exit exam. Again, this could be 600 students, so taking a random sample from one grade level would also be another possibility to narrow the study. By limiting my sample size, I have made the study more feasible, which increases my chances of successfully collecting the data (and completing my thesis).

Another method of narrowing the study and increasing feasibility is by reducing the number of research questions. (I will discuss how to develop

research questions in more depth later in the chapter.) Keep in mind that the more research questions you have, the more data you will have to collect and analyze (and possibly include more participants). The intent of the thesis is not to study everything with regard to your topic; often, it is better to study one or two things in depth. By limiting the amount of data you collect, you gain more control over the process. In many ways, conducting a study is like cooking (something I have never been able to master). If you select a recipe with 10 ingredients (some of which you have to buy in specialty stores), the cooking process becomes more complicated than if you had a recipe with five ingredients because there are more factors outside of your control. If done correctly, you could end up with a mouthwatering dish and get rave reviews from friends and family. However, with so many ingredients to mix, blend, blanch, or puree, there is an increased chance of making mistakes, burning something, cutting yourself, over- and under-cooking items, and basically losing your sanity in the process.

Accessibility

Another related factor to consider when narrowing your study is accessibility. Accessibility refers to the ability to gain access or entry to the research site and participants. This is related to feasibility because without access to the research site or participants, it will be impossible to conduct and complete the study. Keep in mind that some places of business, schools, detention centers, hospitals, and clinics do not allow individuals outside of the organization to conduct research at their sites. If they do allow outside researchers, the application/approval process may take weeks or months to complete, so you need to plan accordingly. Thus, before you finalize your research plan, it is best to get a letter of permission to access participants from the administrator at the research site (some IRBPHS applications require this for the proposal). This will ensure that you can at least get through the front door.

If you do gain access to the research site, another factor to consider is ease of access and proximity. Basically, you need to determine how easy it will be for you to collect the data for your study. For example, I want to conduct a study on the parenting skills of teenage mothers in juvenile detention centers. I will measure their parenting skills by conducting observations while they are interacting with their children. The administrators at the detention center have given me permission to access the participants for my study. The center is 15 miles away from my house, and the visiting hours for mothers and their children are Monday through Friday from 12:00 p.m. to 2:00 p.m. In the morning from 8:00 a.m. to 12:00 p.m. and in the afternoon from 2:00 p.m. to 6:00 p.m., the children are at the onsite child care center. However, my

normal work hours are from 8:00 a.m. to 1:30 p.m., which means by the time I get to the center, I will be able to observe the mothers and children for only 15 minutes! This is not enough time to collect rich observation data for the study. Even though I had access to the research site and participants, because of other external factors outside of my control, I did not have access in terms of ease and proximity. Thus, when considering your study, make sure that you will have true access to collect data for your study. One way to increase true access is by conducting the study at a setting where you already spend a good deal of time such as at your place of employment, volunteer site, or training/school site. For the example study above, since I could not quit my job but was able to access the children at their child care center in the afternoon, I could refocus my topic to study the effects of incarcerated teenage mothers on children's social and emotional development. By refocusing the topic, I was still within the broader area of teenage mothers in juvenile detention centers, but I made the study's participants truly accessible by observing the children rather than the mothers.

Time and Resources

In addition to feasibility and accessibility, you must consider available time and resources before starting a study. Time refers to the researcher's time that is available to devote to the study as well as the duration (length of study) and frequency (how often the researcher will interact with participants). Resources are tangibles such as materials and finances necessary to conduct a study but also include nontangibles such as personal health and energy. Make sure you have the time and resources to complete the tasks required by the study such as traveling to the research site, implementing an intervention if required, purchasing or developing materials, collecting data, analyzing the data, and reporting the data. Keep in mind your "team" of researchers will consist of yourself, a computer, and a supportive spouse, partner, friend, pet, or family member if you are lucky. Thus, before you start, it is critical to narrow and refocus your study so that you are not overcommitting and stretching yourself too thinly.

For example, your school district has required all teachers to receive in-service training on research-based practices to improve students' statewide reading test scores. Since you are in a master's degree program for education, your principal has asked you to conduct your thesis on this topic. She wants you to lead 20 hours of professional development sessions at the school site with 15 kindergarten through fifth-grade teachers, collect data on the teachers' implementation of the research-based practices, and report on the students' outcomes. The in-services would start in January after the winter break, the state assessments start in April, and, because of budget cuts, you would have

to find and provide all the training materials. To be fair, the principal has given you two 50-minute periods of release time per week from your third-grade class. Should you do it? You have access to willing participants, some release time, and the support of the principal, so it should be feasible, right? **WRONG!** Clearly, this study is above and beyond what you have available in terms of time and resources. First, the allocated time is much too short. Three months is not enough time to research and locate materials, conduct 20 hours of in-service trainings, conduct observations for 15 teachers, and collect student data—all of this on top of your normal teaching responsibilities. Second, there are no curriculum resources available, which means you would probably have to borrow or buy materials (out of pocket) or develop your own materials (in your spare time) for the trainings. Thus, even though it may have seemed like a good study to conduct because of the accessibility, this is an unrealistic study because of the demand on your time and resources. Some suggestions I would make to narrow the focus of the study would be to reduce the training from 20 to 10 hours, limit the responsibilities so that you would only provide training and observation to the third-grade-level team, and ask the principal to provide a small budget for materials and more release time. By making the parameters more realistic (both in length of the study and time to devote to the study) and having resources available, you have increased the feasibility and quality of the study.

Developing Answerable Research Questions

Once you have selected and narrowed your problem, it is time to develop the research question. A **research question** is related to the problem in a study and is the question the researcher attempts to answer. Good research questions narrow the topic and focus your research study. They also guide the type of data that will be collected or how the data should be collected. For example, I want to conduct research around the problem(s) related to neighborhood violence and children's development. The broad problem is "neighborhood violence," and the research problem within this topic is, "How violence within neighborhoods affect children's cognitive development." Once I know my research problem, I need to generate a research question(s) that will guide my study. Some programs or disciplines may use different terms to refer to the research questions, such as research hypothesis or null hypothesis. Always check with your chairperson to make sure you are using the appropriate terms.

Answerable Questions

The most important consideration when developing a research question is whether or not you can *answer* the question (i.e., the question is researchable).

That may seem a bit strange—after all, aren't all questions answerable? Not necessarily. An **answerable research question** is one where the researcher is able to collect data or information (using a measurement instrument) to answer the question related to the problem. There has to be some measurement instrument or method that can be used (e.g., survey, observation, test, interview) to collect data or information from the participants in the study. In other words, if you cannot *measure* the research problem in some way, then you cannot answer the research question. For example, for my research problem of "neighborhood violence and children's cognitive development," the research question is about the effects that violence within neighborhood has on children's cognitive development. Thus, one possible research question is, "What are the effects that neighborhood violence has on young children's academic achievement?" This is a possible research question because I can collect data to measure the effect or outcome of the problem on my participants. However, the research question is not very clear because there are several ambiguous terms. These ambiguous or subjective terms must be *defined* before I can determine what exactly is being studied. For example, what constitutes neighborhood violence? Who are considered *young* children? What is meant by *academic achievement*, and which indicators will be used? When considering whether or not a term is ambiguous, ask yourself if you and a complete stranger would have a different definition of the term or if the term would be unfamiliar to a person outside of your field; if so, it is best to define the term.

Defining Terms

There are three ways you can define terms related to your research question and study: by dictionary, by example, or operationally (Fraenkel & Wallen, 2006). A **dictionary definition** is a definition that is offered in a dictionary to define ambiguous terms related to the study or research question. This may not always be applicable to your study, especially when it is a compound word or if the terms represent a concept or idea such as neighborhood violence. For example, when I look up *neighborhood* in the dictionary, the closest definition is "the people living near one another" ("Neighborhood," n.d.). Then, when I look up *violence*, the closest definition is "exertion of physical force so as to injure or abuse." When I put the two together, my definition of neighborhood violence would be "exertion of physical force so as to injure or abuse by people living near one another." This is close to what I am thinking of but does not really capture what I want to research because it is vague in terms of the parameters of the neighborhood and type of violence.

Another way to define terms is by giving an example definition. An **example definition** is a definition that uses examples to define ambiguous terms related to the study or research question. For instance, for neighborhood

violence, an example definition would be an area where violent crimes such as shootings or stabbings, home and auto theft, gang-related activity such as fighting, muggings, and so on, occur regularly. This gives the reader a better idea of what I want to study, but there is still ambiguity as to the size of the area and how regularly the violent crime must occur in the neighborhood. Perhaps the best way to define terms is to give an operational definition. An **operational definition** is a definition that describes attributes or characteristics of the term that need to be present to measure it. For example, a neighborhood could be determined by the area within a given zip code or group of city blocks, and neighborhood violence could be limited to violence committed with weapons such as guns and knives. In this study, a *young child* could be a child between the ages of six and nine, and *academic achievement* could be the child's performance on a standardized achievement test. By operationally defining the ambiguous terms in my research question, it is now clear to me and to the reader the exact phenomenon I am studying. I have also defined the terms in such a way that I can now collect measurable data to answer the research question.

There are at least three types of questions that would *not* be good research questions: philosophical/rhetorical, value/moral, and hypothetical (Fraenkel & Wallen, 2006). The first kind is philosophical or rhetorical in nature and resembles questions asked by four-year-olds that leave you scrambling for an answer. For example, "Why was I born? Why did our dog have to die? What is the meaning of life?" are all nonresearchable questions. A **nonresearchable question** is a type of question where the researcher cannot collect measurable data to answer the question, or where the "answers" are based on philosophical, spiritual, or personal beliefs. The second kind of nonresearchable question involves making a value or moral judgment. For example, "Should plastic bags be eliminated at grocery stores? Should all children be tested annually? Does counseling help or hurt clients?" are not researchable questions because, again, you cannot collect data to answer the question. Additionally, the "answers" to the questions are based on personal values and biases. The third type of nonresearchable research question is based on hypothetical situations. For example, "What if there was no war? What if everyone grew their own food? How long would humans live if disease were eliminated?" are all nonresearchable questions because you cannot collect data in a setting that exists only hypothetically. Additionally, there would not be any measurable outcomes.

Look at these questions from my example study and decide which type of nonresearchable question they are:

- Why are neighborhoods plagued with violence?
- What is the best way to save children from neighborhood violence?

- Should handguns be banned to reduce neighborhood violence?
- What would happen to children's development if they did not witness regular violence in their neighborhoods?

In summary, it is critical that the research questions for your study are answerable and any ambiguous terms are clearly defined. This is a necessary first step because the research questions will guide the rest of your study and the methodology (e.g., research design, setting, participants, measurement instruments, data collection, data analysis) that you use to answer the questions.

Creating a Realistic Timeline

Now that you have narrowed your topic and developed answerable research questions, it is time to create a timeline. A **timeline** is a schedule that is created by the researcher that outlines all the necessary steps and phases to complete the study within the allocated time. This is necessary because often students will be so excited about finding an interesting research problem that they plan a study that does not have a realistic timeline. For example, imagine that you have one academic year to complete your study, and it is due by the end of the spring semester (typically in May). Your intervention is going to take three months, and you cannot start the intervention until the beginning of January. This will leave you one month to score all the data, complete the data analysis, report the data, and write up the results (not to mention the multiple revisions you will have to make). This "narrow" timeline will not only put unnecessary stress on you (and your chairperson), but it may also deter you from completing the study. A better timeline would be to start the intervention earlier or, if that is not possible, shorten the intervention.

A realistic schedule or timeline is one that gives you some cushion and a reasonable amount of time to complete each section or chapter. Keep in mind that when developing a timeline, every part of the process will probably take longer than you expect, and there are sure to be "surprises" along the way. You should also expect to write multiple revisions of every chapter. In addition, there may be events or situations (personal or professional) that cause interruptions that you cannot predict or control. Thus, putting "buffers" into your timeline will give you the flexibility to stay on track (and not feel guilty about always being behind schedule).

Here are some possible tasks to include in your timeline and a sample schedule for one academic school year. As every institution is different, it is best to check what the expected procedures are at your institution.

August–September

- ✓ Conduct preliminary research to find possible research topics
- ✓ Speak to colleagues about possible research topics
- ✓ Meet with chairperson to discuss how to narrow topic and refocus study
- ✓ Develop answerable research questions
- ✓ Obtain permission from research site to conduct study and access participants

September–October

- ✓ Meet with chairperson to discuss Chapter One
- ✓ Locate and finalize sample group of participants
- ✓ Submit application to university's Institutional Review Board for the Protection of Human Subjects
- ✓ Submit application to organization, school district, or other entity for permission to conduct research
- ✓ Submit first draft of Chapter One

October–November

- ✓ Make revisions and submit final draft of Chapter One
- ✓ Locate and finalize measurement instruments
- ✓ After receiving permission from all parties involved, start the pretest phase (if appropriate)
- ✓ Begin conducting interviews or classroom observations (if appropriate)
- ✓ Meet with chairperson to discuss Chapter Two
- ✓ Conduct literature review
- ✓ Submit first draft of Chapter Two

November–December

- ✓ Make revisions and finalize Chapter Two
- ✓ Begin the intervention phase of your study (if appropriate)
- ✓ Continue with the interviews and field observations (if appropriate)
- ✓ Meet with chairperson to discuss Chapter Three
- ✓ Gather information and demographic data of participants and research site
- ✓ Submit first draft of Chapter Three

December–January

- ✓ Meet with chairperson to discuss ongoing progress
- ✓ Begin the intervention phase of your study (if appropriate)
- ✓ Continue with the interviews and field observations (if appropriate)
- ✓ Make revisions and finalize Chapter Three

January–February

- ✓ Complete intervention or data collection
- ✓ Begin the posttest phase (if appropriate)
- ✓ Meet with chairperson to discuss data analysis

February–March

- ✓ Score measurement instructions and complete data analysis (if appropriate)
- ✓ Transcribe field notes and complete data analysis (if appropriate)
- ✓ Meet with chairperson to discuss Chapter Four
- ✓ Submit draft of Chapter Four

March–April

- ✓ Make revisions and finalize Chapter Four
- ✓ Meet with chairperson to discuss Chapter Five
- ✓ Submit draft of Chapter Five

April–May

- ✓ Make revisions and finalize Chapter Five
- ✓ Double-check all citations and references for appropriate format (e.g., APA)
- ✓ Create necessary tables and figures
- ✓ Locate all documents for appendices
- ✓ Create abstract and table of contents
- ✓ Conduct final formatting
- ✓ Meet with chairperson for final printout and review
- ✓ Bind and copy final thesis

May

- ✓ Submit final revisions and copies of the thesis to committee members for signatures
- ✓ Graduation celebrations

June

- ✓ Take a much-deserved vacation

Time Management

Realizing all the tasks that need to be done for the entire thesis can be a bit daunting. However, if you manage your time well, meet regularly with

your chairperson, and try to stick as closely as possible to your timeline, it is very possible to complete the study in a reasonable amount of time and do a high-quality job. Because the thesis is different from traditional course assignments where there are hard-and-fast deadlines, it is easy to let the months go by without any real progress. Unfortunately, the thesis is not like those term papers that you wrote in college the night before (and got an A!). You will need to make consistent progress on the research and data collection aspects as well as the writing process. There are two strategies that will help you be successful in this process.

Reserving Time

The first strategy is to *reserve time* for the thesis. In this day and age, we are all busy, all the time. There never seems to be enough time to finish everything that needs to be done—who can possibly eat healthy food, exercise, and get enough sleep? Like other big projects (e.g., cleaning the garage), the thesis will fall to the bottom of the to-do pile unless you allocate and reserve time to work on it on a consistent basis. The reserved time can be one day a week, one hour every morning, or even 20 minutes every evening. You can pick whatever works best for you and your schedule; however, once you have made that reservation with yourself and the computer, you must treat it as sacred time. This means there are no excuses for not keeping the “appointment” or putting it off and saying, “I’ll do double time tomorrow or next week.” Let’s face it, if you could not find 20 free minutes today, why would you be able to have 40 free minutes tomorrow? Of course, there will be emergencies and surprises that come up now and then, but it is really critical that you devote a consistent and regularly scheduled amount of time to work on the thesis and be self-disciplined. This means turning off the cell phone, e-mail, television, or anything that will disrupt you. You should also find a place to work where you will be most productive whether it is in a home office, library, or café. Meeting with a “writing partner” on a regular basis might also keep you from canceling thesis appointments, although make sure it does not become a social event!

Chunking Method

Another strategy that will help you be successful in the process is the chunking method. The **chunking method** refers to breaking up large tasks into smaller, more manageable chunks such as writing one section of a chapter rather than the entire chapter. If the task is to write an entire chapter or transcribe all the interviews, this will seem very intimidating, and the

natural response is to do anything (e.g., clean out your desk, reorganize your closet) to avoid the required task. Believe me, I am the master of procrastination and have a very clean desk. However, if you set a goal to work on only one small chunk of the larger task (e.g., one section of the chapter, one transcription), this will feel less daunting, and you will be more likely to start the task. Writing the thesis is similar to sticking to an exercise plan (something I had to do after an ankle injury). When I set my goal to ride the exercise bike for 40 minutes every other day, it was almost impossible to find 40 minutes of “free time,” and I just kept putting it off until the next day. Since my riding time was supposed to be every other day, this meant I never rode the bike. Meanwhile, the bike was a constant reminder of my “failure” and was being used as a very expensive clothes hanger. However, when I set the goal to ride the bike 15 to 20 minutes at the end of my day, I was able to stick to this schedule more regularly, and sometimes I even stayed on the bike for another 20 minutes! Once I got into the “habit” of getting on the bike, it became part of my daily routine. I can now proudly say that I ride the bike for 30 minutes almost every day and even look forward to it (that is a bit of an exaggeration). The point is, one of the hardest parts of writing the thesis will be to motivate yourself to sit down and just turn on the computer. However, once you start and begin to build momentum and form a routine, you will find that not only will it be easier to continue, but you might actually enjoy yourself in the process. Building in small rewards after each completed chunk is another way to reinforce your productive behavior (eating a bag of chips as I did after the bike ride is not recommended). The next time that you are feeling overwhelmed and ready to quit, take some deep breaths and remember the adage of how to eat an elephant (also not recommended) (“You Can Eat,” n.d.):

You can eat an elephant.

Oh, yes you can it's true.

They may be huge but not to worry, they aren't too big for you.

“Just how can I eat such a thing that's so immense in size?”

“Just look at it in pieces and make them all bite size.”

You see to look from head to tail can be a daunting task.

Many would just give up now and let the elephant pass.

Look at it as if you can eat it piece by piece, It may take you a while, but your goal you will reach. So, next time you have a task that is difficult to do, Remember, you can eat an elephant so take a piece and chew!

Summary

Selecting your research topic/problem is perhaps the most important (and difficult) phase of the thesis process, so I hope this chapter has given you ideas on where to start and how to narrow the focus. In the next chapter, I will discuss in detail how to research the existing literature related to your research topic/problem. Here is a summary of the most critical points from Chapter 2:

- The topic that you choose for your thesis should be related to your field or discipline and address a *research problem* and *questions*.
- The research problem that you select should have personal significance, could be a problem or issue that you or your colleagues are currently facing in the immediate environment, and should make a contribution to the research literature.
- In electronic databases such as ERIC, you can find citations and summaries to journal and newspaper articles, dissertations and theses, books and book chapters, technical and government reports, and tests and measures related to your field.
- An important factor to consider when selecting a research topic is ethics, as you should not jeopardize the participants' well-being in any way.
- Every institution of higher education requires that graduate students submit their master's thesis study proposals through the Institutional Review Board for the Protection of Human Subjects (IRBPHS) for approval *prior* to conducting the study.
- Three important factors to consider when narrowing your study are feasibility, accessibility, and available time and resources.
- The most important consideration when developing a research question is whether or not you can *answer* the question (i.e., the question is researchable).
- There are three ways you can define terms related to your research question and study: by dictionary, by example, or operationally.
- There are at least three types of questions that would *not* be good research questions: philosophical/rhetorical, value/moral, and hypothetical.
- Once you have narrowed your topic and developed research questions, create a schedule and timeline so that you can complete the study within the allocated time period.

Resources

Common Obstacles and Practical Solutions

1. A common problem that students face at this stage is feeling anxious about selecting a research topic. Words that come to mind are, "Everything sounds interesting—how do I choose just one topic?" At this point, do not put so much pressure on yourself to find the "perfect" research topic. Instead, select a few, do some scanning of the research, and then see which one seems the most interesting, feasible, and accessible. Remember that you can always change topics, and sometimes in doing the research, the topic will "find" you.
2. Another common obstacle that students face at this stage is thinking about the time issue. Words that come to mind are, "How will I ever have enough time to write?" If you are like me and your days are packed from the moment you open your eyes in the morning until you close them again in the wee hours of the morning, finding "free time" is like winning the lottery without buying a ticket—chances are pretty slim. That is why it is critical for you to *schedule* time to write—schedule writing time in your daily planner just as you would a doctor's appointment. Think of it as an appointment to benefit you (without copayments!).

Reflection/Discussion Questions

- As you begin to think about possible research topics, it is important to frame them in the context of research questions. Having answerable research questions related to problems in your field or discipline will help narrow the focus of your study (and ensure that you have a feasible study). The following reflection/discussion questions will help to guide the process of developing answerable research questions and defining the appropriate terms.
1. What makes a research question answerable versus nonanswerable? What are the different types of nonanswerable questions? Brainstorm critical problems in your field and develop three answerable questions and three nonanswerable questions related to the problem. Discuss why the questions are answerable or not answerable.
 2. What are the differences in the three methods for defining terms? Discuss the pros and cons of each type of method. Based on the answerable research questions you developed earlier, identify and define ambiguous terms using the most appropriate method.

Try It Exercises

The following exercises (Activities One and Two) will help you to identify a potential topic for the thesis and ways to narrow the topic so that it is feasible to study. Activity Three is designed for you to create a timeline with the help of your chairperson. This timeline and personal writing schedule will help you to stay on track and finish the thesis in a timely manner (remember the rewards from Chapter 1!).

1. **Activity One:** For this activity, focus on the knowledge and experience you have gained from your master's degree program that will help you throughout the thesis process.

DREAM TOPIC: In the perfect world where I had limitless time, money, and energy, I would conduct a study with this topic:

Now that you have that out of your system, follow the steps below to choose a topic for your master's thesis. Remember that you're saving the dream topic for your doctoral dissertation.

- Make a list of the topics/problems (based on course work) that would be interesting to research further.
- Make a list of the topics/problems (based on community, fieldwork, or clinical experience) that would be interesting for you to research further.
- Based on the information above, answer the following prompts:
 1. A topic that has personal significance:
 2. A topic that is a critical issue in my field:
 3. A topic that I found in existing research:
 4. A topic that is ethical to research:

- Now choose the BEST topic for *you* from 1–4 and write a one paragraph description of the research topic/problem that you are interested in pursuing for your master's thesis study.

2. **Activity Two:** Based on the research problem that you selected for Activity One, discuss with a colleague or your chairperson how to narrow the focus of your study considering feasibility, accessibility, and time/resources.

3. **Activity Three:** Meet with your chairperson to create a realistic timeline for completion of the thesis. Use the sample list of tasks from this chapter and modify the tasks and timeline to match the chairperson's and university's expectations for submitting written work and the final thesis. Then create a personal contract where you schedule when and where you will focus on the writing tasks. Sign both the timeline and contract, give one copy to your chairperson, and tape one copy by your work space.

Key Terms

- accessibility
- answerable research question
- chunking method
- dictionary definition
- electronic database
- example definition
- feasibility
- guided research
- Institutional Review Board for the Protection of Human Subjects (IRBPHS)
- nonresearchable question
- operational definition
- research question
- resources
- sample group
- search engine
- time
- timeline

Suggested Readings

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Web Link

- So what is a (Diploma) Thesis? A few thoughts for first-timers. http://www.ifi.uzh.ch/ddis/theses/what-is-thesis/WHATISATHESIS_V1_0.pdf