This course supports the assessments for JUT2. The course covers 10 competencies and represents 2 competency units.

Introduction

Overview
Research can significantly contribute to practice. More and more teachers are being asked to gather data to learn the answers to questions that affect teaching and learning. This assessment will expose you to the principles of scientific inquiry that are used in the study of educational problems.

Knowledge of research is important for teachers, since they

- need to become familiar with sources of data and information to help improve professional teaching practice;
- live in a society that is driven by scientific inquiry;
- need to learn how to read and critically evaluate published research; and
- need to learn how to design and conduct research to answer questions to help improve teaching and learning.

As you work through this course and its assessments, you should focus all assignments and tasks on topics within your chosen program of study.

Watch the following video for an introduction to this course:

Note: View the video in full screen at 720p for best results.

Competencies
This course provides guidance to help you demonstrate the following 10 competencies:

- Competency 507.2.1: Media and Technology Foundations
  The graduate describes the use of media and technology for learning and is able to evaluate the environment for the implementation of technology.
- Competency 507.2.3: Integrated Technology Development
  The graduate produces exportable instructional and professional products using various integrated application programs.
- Competency 508.1.1: Quantitative Research Paradigms
  The graduate understands the components of quantitative research.
- Competency 508.1.2: Qualitative Research Paradigms
  The graduate understands the components of qualitative research.
- Competency 508.1.3: Action Research Paradigms
  The graduate understands the components of action research.
- Competency 508.2.1: Purpose of Literature Review
  The graduate understands the purpose of conducting a literature review and understands its relationship to educational or healthcare research and practice.
- Competency 508.2.2: Topic Selection
  The graduate understands how to select appropriate research topics and research paradigms.
- Competency 508.2.3: Resource Identification, Evaluation, and Selection
  The graduate identifies, evaluates, and utilizes information resources in order to investigate specific research topics.
- Competency 508.2.5: Develop a Literature Review
  The graduate understands how to organize and develop a thorough and coherent literature review.
- Competency 508.3.5: Basic Data Evaluation Concepts
  The graduate understands basic concepts involved in the evaluation of data.

Teaching Dispositions Statement
Please review the Statement of Teaching Dispositions.

Course Instructor Assistance
As you prepare to successfully demonstrate competency in this subject, remember that course instructors stand ready to help you reach your educational goals. As subject matter experts, mentors enjoy and take pride in helping students become reflective learners, problem solvers, and critical thinkers. Course instructors are excited to hear from you and eager to work with you.

Successful students report that working with a course instructor is the key to their success. Course instructors are able to share tips on approaches, tools, and skills that can help you apply the content you're studying. They also provide guidance in assessment preparation strategies and troubleshoot areas of deficiency. Even if things don’t work out on your first try, course instructors act as a support system to guide you through the revision process. You should expect to work with course instructors for the duration of your coursework, so you are welcome to contact them as soon as you begin. Course instructors are fully committed to your success!

Preparing for Success

The information in this section is provided to detail the resources available for you to use as you complete this course.

Watch the following Getting Started video for additional information which will help you complete this course:

*Note: View the video in full screen at 720p for best results.*

Learning Resources
The learning resources listed in this section are required to complete the activities in this course. For many resources, WGU has provided automatic access through the course. However, you may need to manually enroll in or independently acquire other resources. Read the full instructions provided to ensure that you have access to all of your resources in a timely manner.

Automatically Enrolled Learning Resources
You will be automatically enrolled at the activity level for the following learning resources. Simply click on the links provided in the activities to access the learning materials.

**VitalSource E-Texts**
The following textbooks are available to you as e-texts within this course. You will be directly linked to the specific readings required within the activities that follow.


*Note: Web content links to MyEducationalResearchLab in the Educational Research: Competencies for Analysis and Applications text are disabled in this e-text edition and can be skipped for this course of study.*

*Note: These e-texts are available to you as part of your program tuition and fees, but you may purchase hard copies at your own expense through a retailer of your choice. If you choose to do so, please use the ISBN listed to ensure that you receive the correct edition.*

**ASCD**
You will access ASCD materials at the activity level within this course. These courses are an online independent study learning resource provided by the Association for Supervision and Curriculum Development (ASCD).

*Note: Some of the ASCD courses are more appropriate for K–12 settings.*

**Starting Your Research WGU Library Guide**
You will access this research guide in the activities of this course. Please review the Starting Your Research guide for help with finding a topic and using the library.

**Pacing Guide**
The pacing guide suggests a weekly structure to pace your completion of learning activities. It is provided as a suggestion and does not represent a mandatory schedule. Follow the pacing guide carefully to complete the course in the suggested timeframe.

*Pacing Guide: Literature Review for Educational Research*

*Note: This pacing guide does not replace the course. Please continue to refer to the course for*
Purpose of Literature Review and Topic Selection

One of the most rewarding elements of graduate school is identifying a real-world problem that you have experienced, creating solutions to it, and conducting either research or an evaluation to determine the effectiveness of new solutions. Prerequisite to that process, and supporting it throughout, is a thorough review of the literature in which you review and synthesize relevant information. In this section, you will learn the purpose of a literature review, the three research paradigms, and different research approaches in order to identify an appropriate research topic. You will also learn characteristics of good topics so that you can select a topic that is manageable and interesting to you.

Research Types and Literature Review

In this topic, you will learn about research and the purpose of a literature review. A good understanding of types of research and approaches will help you to identify an appropriate topic for research. You will also learn about conducting a literature review. Remember, it is always helpful to highlight text and take notes while reading.

This topic addresses the following competencies:

- Competency 508.2.1: Purpose of Literature Review
  The graduate understands the purpose of conducting a literature review and understands its relationship to educational or healthcare research and practice.
- Competency 508.2.2: Topic Selection
  The graduate understands how to select appropriate research topics and research paradigms.

Reading: Researching and Reviewing Literature

Read the following chapters in *Educational Research: Competencies for Analysis and Applications*:

- chapter 1 ("Introduction to Educational Research")
- chapter 2 ("Selecting and Defining a Research Topic")
- chapter 3 ("Reviewing the Literature "), focusing on pages 82 - 91

Read the following sections in *The Scott Foresman Handbook for Writers*:

- chapter 2 ("How Do You Find and Explore a Topic?")

Review the associated *Educational Research: Competencies for Analysis and Applications* multimedia presentations:

- chapter 1 ("Introduction to Educational Research")
- chapter 2 ("Selecting and Defining a Research Topic")
- chapter 3 ("Reviewing the Literature")
Use the following questions to guide your reading:

- What are the major steps involved in conducting a research study?
- How is research classified?
- What are the three different research paradigms, and what are methods that can be used with each?
- What are the limitations of the scientific method in education?
- What is the purpose of a literature review?
- What are the steps of conducting a literature review?

Write definitions for the following words in your study notebook:

- analyze
- explain
- keywords
- classify
- prove or disprove
- technical writing
- discuss
- review of the literature
- meta-analysis
- survey
- compare and contrast
- evaluate

**Selecting and Defining a Research Topic**

In this section, you will start to identify a topic appropriate for research. You will first read to understand the characteristics of good research topics and then discuss them with the course instructor to identify your own topic. You will learn how to use online libraries in order to do online searches for literature. By the end of these activities, you should have identified enough sources for your literature review.

The research skills you learn and the topic you choose will lay the foundation of what you will build into a research proposal. Your selection must be:

- measurable,
- manageable (not too broad or too narrow),
- relevant to your program goals, and
- related to a problem in your specific area that is meaningful to you.

**Finding a Topic**

Access the [Starting Your Research](#) guide and read the following sections on the main page:

- Finding a Topic
- Tools for Gathering and Developing Ideas

**Narrowing a Topic**
Practice narrowing down the following topic as it relates to your program:

- Education and Technology

Frame the narrowed topic as either a question or a problem statement. Use the following example to guide you:

- Program: MS Special Education
- Topic: Assistive technology in inclusion classes
- Question 1: Does the use of reading software programs increase comprehension for at-risk high school students?
- Question 2: Can the use of computer-based instruction increase "time on task" for students diagnosed with attention deficit disorder (ADD) or attention deficit hyperactivity disorder (ADHD)?

In each of the topics, cluster key words that might help you locate resources to explore the topic (e.g., special education, inclusion settings, computer-aided instruction, at-risk, reading comprehension).

Post your answers to the message board.

**Organizing Your Work**

Create a word-processing document and during this course follow the given activity instructions to write in your notebook.

It is always helpful to break your writing into sections using the required subtopics as subheadings. It is difficult for the reader to read a very long paragraph without breaks; it is equally difficult for you to check if you have addressed each subtopic fully. For example, you can create a structure like the following:

```
Topic Selection
(Center this main heading in normal font type)

Introduction
(left-justified and in italics)

- Your discussion goes here.

Instructional Problem
(left-justified and in italics)

- Your discussion goes here.

Instructional Setting
```
Questions for Literature Review

- Your discussion goes here.

Summary

- Your discussion goes here.

Proofread the completed task carefully and check the APA style.

Resource Identification, Evaluation, and Selection

Your literature review will consist of several journal articles, research studies, dissertations, and other sources. In this section, you will begin to assemble sources, evaluate them, and get them ready for a literature review. This will form the base for your literature review.

You will need to include at least five references in your literature review for this course. Expect to review 10–20 or more sources to find five that are scholarly and reliable.

Conducting Research Using the WGU Library Resources

As a student at an online university, it is imperative that you understand how to use an online library. The WGU Library offers access to abstracts and full-text articles from periodical journals, magazines, and newspapers through FirstSearch, Ingenta, ProQuest, and BI-Inform indexes.

This topic addresses the following competency:

- Competency 508.2.3: Resource Identification, Evaluation, and Selection
  The graduate identifies, evaluates, and utilizes information resources in order to investigate specific research topics.

Reading: Conducting Research

Read the following pages in *Educational Research: Competencies for Analysis and Applications*:

- chapter 3 ("Reviewing the Literature"), focusing on pages 82-91.

Read the following in *The Scott Foresman Handbook for Writers*: 
Write definitions for the following words in your study notebook:

- Boolean operators
- search engine
- annotated bibliography
- LISTSERVs
- academic directories
- field research
- databases
- academic integrity

Finding Sources

After choosing a topic, your next challenge will be to navigate the different databases (groups of journals) and resources available. Often, there is so much literature on a topic that locating articles and studies supporting it becomes very time intensive and somewhat frustrating.

One strategy you can use to reduce frustration and time is to learn about research sources that are easy to follow and may help you in examining the scope of your topic.

Complete this activity and post your answers in the message board.

Using Online Databases

Access the Starting Your Research guide and read the directions under the “Find Articles” tab.

Use the WGU Library to complete the following:

- Locate an article relating to your topic using the main Research Databases search.
- Locate an article in the Education Full Text database using the individual database search.
- Cite the articles using APA style.

Using the WGU Library

When you are working on the Research Fundamentals domain, you will need to get the full-text articles for your literature review. Search for full-text sources in the following databases:

- ERIC
- WilsonSelectPlus

To effectively search for sources, follow these steps:

1. Develop a list of keywords to start your search. If your keywords generate too many or too few sources, modify your keywords to be more specific or more general. It is likely that you may not find sources that directly relate to your subject matter. You may need to search for sources that are indirectly related to your subject and then go from there.
2. Scan the results to see which ones are related to your topic.
3. Check to see which sources have full-text articles.
4. Obtain as many primary sources, articles in refereed journals, scholarly and published research studies, or books as possible. Avoid too many sources from the Internet.
5. After you have obtained the items that are related to your topic, modify your keywords and search again until you have enough sources.
6. You will need to include at least 5 references in your literature review for JUT2. Expect to review 10 sources to find 5 that are scholarly and reliable.

Reading: CARS Evaluation

Read the following chapter in *The Scott Foresman Handbook for Writers*:

- chapter 45 ("How Do You Evaluate Sources?")

After you have obtained enough sources, you must evaluate your sources for reliability. The CARS evaluation tool is recommended for such activities and can be found at the "CARS Checklist" website.

Create a table to report the results of your CARS evaluation. List the items in the left column and the criteria in the top row. Write your evaluation comments for each item under each criterion.

The following is an example of what your table could look like:

<table>
<thead>
<tr>
<th>Table 1: Results of CARS Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titles</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

*Note: You can turn on the vertical and horizontal lines when you are working with the table so that you can see rows and columns. After you have finished the table, you can turn the lines off except the top, the second, and the bottom horizontal lines so that you have only horizontal lines and no vertical lines, as shown in this example. You do this in the table menu under "Properties" > "Borders and Shading."

In your CARS table, for each criterion, you will need to provide some narrative details to justify your determination that each of the sources is appropriate. The "Evaluating Websites" site has a lot of details for CARS. Although the focus of the site is for website evaluation, not for research articles, the questions in the CARS checklist might give you some hints of how to evaluate a source. However, do not simply use a numerical rubric like those you can find on the site.

**Technology Sources, Ethics, and Privacy**

Technology provides an ever-increasing source of information for educators. Accessing and analyzing information from technology sources is equally important as accessing research
information at a library. You will learn the technology skills that are most relevant to education today. Effective instruction today requires the following:

- careful attention to the problem or need being addressed and the characteristics of the target population;
- the use of technology to support learning; and
- the design of effective research-based instructional strategies.

This component of your work at WGU is designed to help you to gain a broad overview of the field of technology integration with a fundamental understanding of some key concepts and principles. Most importantly, this course will enhance your technology skills and enable you to use various integrated application programs.

**Spreadsheets in Education**

Spreadsheets are not just for mathematicians. Practically everyone can find a use for a handy spreadsheet. This might be as mundane as tracking attendance and grades or as sophisticated as data analysis that can improve your practice. By the end of this topic, you should be able to

- create a professional-quality spreadsheet that incorporates advanced functions, formatting, formulas, charts, and graphs.

Your study of spreadsheets in education includes resources from Atomic Learning and your textbooks. Be sure to utilize each of these resources, as they provide a broad range of viewpoints on the topics.

This topic addresses the following competency:

- **Competency 507.2.3: Integrated Technology Development**
  The graduate produces exportable instructional and professional products using various integrated application programs.

**Reading: Spreadsheets**

Read the following chapter in *Integrating Educational Technology into Teaching*.

- chapter 4 ("Teaching With the Basic Software Tools: Word Processing, Spreadsheet, and Database Programs")

Pay attention to the impact of spreadsheets in education and to the productivity and teaching strategies for spreadsheets.

Write a short response to each of the following questions in you study notebook:

- How do you (and how will you) use spreadsheets as a tool for teaching and learning?
- How can a spreadsheet be incorporated into a lesson to encourage learning?
- What are three topics that you could teach to students by using spreadsheets?
The following software tutorials on spreadsheets are available at the Atomic Learning website and may be helpful:

- Microsoft Excel
- Microsoft Works
- Apple Numbers
- Other appropriate software tools

**Presentations**

Nearly everyone has seen a multimedia presentation (e.g., Microsoft PowerPoint, Apple Keynote). Some are engaging and interesting, while others are dull and not engaging. What makes for an effective presentation?

By the end of this topic, you should be able to

- use presentation software to produce a professional-quality presentation with supplementary materials.

Your study of presentations includes resources from your textbooks. Be sure to utilize these resources, as they provide a broad range of viewpoints on the topic.

This topic addresses the following competency:

- Competency 507.2.3: Integrated Technology Development
  The graduate produces exportable instructional and professional products using various integrated application programs.

**Reading: Presentations**

Read the following pages in *Integrating Educational Technology into Teaching*:

- chapter 6: ("Teaching with Multimedia and Hypermedia") focusing on pages 186–189

Pay particular attention to “Tips for Effective PowerPoint and Keynote Presentations.”

Write a short response to the following question on the message board:

- How will you enhance your presentations to improve your professional practice?

**Databases**

Databases are likely one of the applications least used by educators. Some people do not understand how to use databases or think databases are too difficult to create. Knowing how to create effective databases can help you keep organized and save time. You might use databases for something as routine as maintaining a mailing list to parents; for tracking the literature you review for research; for document management; or for even more substantial management of data.

By the end of this subject, you should be able to

- create a professional-quality database to store information relevant to specified
instructional areas and
• reflect on the design process used to create instructional materials with productivity software.

Your study of databases includes resources from Atomic Learning, ASCD, and your textbooks. Be sure to utilize each of these resources, as they provide a broad range of viewpoints on the topics.

This topic addresses the following competency:

• Competency 507.2.3: Integrated Technology Development
  The graduate produces exportable instructional and professional products using various integrated application programs.

Reading: Databases

Read the following chapter in *Integrating Educational Technology into Teaching*:

• chapter 4 ("Teaching With the Basic Software Tools: Word Processing, Spreadsheet, and Database Programs"), focusing on pages 122-133.

Pay attention to components of databases, modeling with databases, and evaluating databases. Consider how you will use what you learn from this chapter in your creation of a database.

Write a short response to the following questions on the message board:

• How might you use databases as mind tools?
• How do databases differ from spreadsheets?

ASCD: Modules 4 and 5

Complete the following modules in the ASCD course *Technology in Schools: A Balanced Perspective*:

• Module 4: Using Technology to Differentiate Instruction, Enhance Understanding
• Module 5: Technology As a Collaborative and Motivational Tool

Legal and Ethical Uses of Technology

In this topic, you will identify the guidelines and policies that are necessary for learners to interact effectively within a technology-rich environment. Confidentiality of personal information has become a critical issue in the digital age. In this topic, you will discuss the ethical and legal reasons for confidentiality of personal information and examine how your organization's records are protected.

This topic is perhaps one of the least understood and most underappreciated in education. Copyright laws may seem complicated and mind-numbing to many. However, these issues are real and relevant to everyone, and they can be made clear and understandable. By the time you complete this section, you should be able to
• communicate guidelines for legal and ethical use of technologies to a given audience in a given situation,
• describe appropriate protective measures for safeguarding electronic resources in a given threat situation,
• describe safe practices and procedures in the use of instructional technology tools,
• discuss how to establish student behavioral expectations that support an effective teaching and learning environment, and
• recognize ethical and logical reasons for maintaining confidentiality of official records or personal information in the online environment.

Your study of legal and ethical uses of technology in education includes resources from e-reserves. Be sure to utilize each of these resources, as they provide a broad range of viewpoints on the topics.

This topic addresses the following competency:

• Competency 507.2.3: Integrated Technology Development
  The graduate produces exportable instructional and professional products using various integrated application programs.

Reading: Ethics

Review the following website:

• Guidelines and Resources for Internet Safety in Schools

Access and read the following article via the WGU E-Reserves. Click the link below, then open the Technology Integration folder to locate the article:


Pay attention to how to be in compliance with the guidelines and what areas you are more likely to fall out of compliance with.

Interview and Reflection

Schedule an appointment with the person responsible for maintaining your organization's acceptable use policy. Ask some open-ended questions, such as the following:

• What are the biggest challenges in enforcing your acceptable use policy?
• How does your organization handle copyright infringement?

Reflect on the responses to the interview and write down your own thoughts in your study notebook.

Privacy Issues
This subject continues the ethics discussion to include privacy issues. Have you ever had second thoughts about the information you share through the Internet? Do you have concerns about how protected you are on the Internet? These questions will be explored in this subject.

Your study of privacy issues in education includes resources from, e-reserves, and ASCD. Be sure to utilize each of these resources, as they provide a broad range of viewpoints on the topics.

This topic addresses the following competency:

- Competency 507.2.3: Integrated Technology Development
  The graduate produces exportable instructional and professional products using various integrated application programs.

**Readings: Privacy**

Access and read the following article via the WGU E-Reserves:


**ASCD: Modules 2, 5, and 6**

Complete the following modules in the ASCD course *Technology in Schools: A Balanced Perspective*:

- Module 2: Bridging the Digital Divide
- Module 5: Teaching Media Literacy
- Module 6: Teaching Balanced Use of Technology

Write a short response to each of the following questions in you study notebook:

- What is your feeling about the FERPA laws?
- Do they go far enough or too far, in your opinion?
- Are students in your school advised of their FERPA rights regularly? If so, how?

**Technology Evaluation**

Before using media and technology with any group of learners, you should evaluate it for its appropriateness to your audience and purpose, its overall effectiveness, and its use as a tool for learning. If you use media and technology that do not measure up to these criteria, you may not adequately address your instructional problem. In this section, you will choose an evaluation tool. Using this evaluation tool, you will evaluate your choice of software or technology resources. In addition, you will be evaluating the methods and strategies that support distance
learning within an instructional setting where technology is used.

Unfortunately, many organizations spend most of their time developing and implementing new systems and programs and very little time evaluating them. This may happen because of time constraints or lack of personnel with evaluation skills. This does not have to be the case in your organization because you are currently developing the skills of an evaluator.

Once you have completed this section, you should be able to:

- evaluate a technology tool or resource based on given evaluation criteria and
- evaluate teaching methods and strategies that support use of distance learning systems in an instructional setting.

**Evaluating Technology**

Your study of technology evaluation includes resources from ASCD, the Internet, and your textbooks. Be sure to utilize each of these resources because they provide a broad range of viewpoints on the topics.

This topic addresses the following competency:

- Competency 507.2.1: Media and Technology Foundations
  The graduate describes the use of media and technology for learning and is able to evaluate the environment for the implementation of technology.

**Reading: Technology Evaluation**

Read the following chapter in *Integrating Educational Technology Into Teaching*:

- chapter 3 ("Teaching with Instructional Software")

Read the following chapter in *Instructional Technology and Media for Learning*:

- chapter 5 ("Computers and Multimedia: Accessing Digital Worlds")

Pay particular attention to

- various software functions;
- integrated learning systems and strategies;
- advantages of computers and media in the classroom; and
- limitations of computers and media in the classroom.

**ASCD: Module 1**

Complete the following module in the ASCD course *Technology in Schools: A Balanced Perspective*:

- Module 1: How Technology Is Changing Education-and Students

**Literature Review**
A literature review is a summary and interpretation of the literature on your topic. It is a comprehensive survey of publications in your field of interest. A literature review should be a survey of what others have done or have found on your topic. Sources should include scholarly articles from reputable sources, like refereed journals and publications.

A review of the literature is done for several reasons, such as to

- learn more about your topic if you are not a subject matter expert,
- find out what other researchers have learned about your topic,
- modify or adjust your research proposal based on what has been learned from others,
- learn more about how others have tried to solve the problem you have identified, and
- review current trends and issues.

**Conduct an Annotated Bibliography**

Before you write up the final APA-style literature review, it is important that you annotate all the sources that you have obtained. Task 2 of the assessment requires an annotated bibliography in addition to the CARS evaluation that you did in the previous section.

The following activities can help you create an annotated bibliography. A good annotated bibliography will lay a solid foundation for your final literature review.

This topic addresses the following competency:

- Competency 508.2.5: Develop a Literature Review
  The graduate understands how to organize and develop a thorough and coherent literature review.

**Reading: Finding Sources**

Read the following in *Educational Research: Competencies for Analysis and Applications*:

- chapter 3 ("Reviewing the Literature"), focusing on pages 92–93

Review the following in *The Scott Foresman Handbook for Writers*:

- chapter 45 ("How Do You Evaluate Sources?")

Please review the words you defined in the "Reading: Conduction Research Activity."

**Annotating Sources**

The following are the recommended steps to annotate all the sources:

1. Create a blank text document and save it.
2. Type up the full APA citation. An example of a citation is as follows:
3. Read the source, take notes summarizing the content (focus), and describe the usefulness, limitations, and audience for which it is intended.
4. Summarize any conclusions or findings the author(s) may have made.
5. Describe your reaction to the item.
6. During your reading, if you find something interesting, write down and use quotation marks at the beginning and end of the quote, indicating the page number where you got the quote. Never quote a passage without adding the quotation marks and page number.
7. Type up your notes under the citation and save the document.
8. Check to make sure you have enough information for the source.
9. Insert a couple of blank lines and then type up the citation for the second source.
11. Do the same for each of the selected sources.
12. When finished, check for spelling errors or content errors. Save the document and print it out.

You have now created an annotated bibliography.

The process described above is only one way of doing an annotated bibliography. In chapter 3 ("Reviewing the Literature") of Educational Research: Competencies for Analysis and Applications, the process is called abstracting. You can also visit these websites for more information about annotated bibliographies:

- How to Prepare an Annotated Bibliography
- Annotated Bibliographies
- Annotated Bibliography Example

**RJUT Task 1 Performance Task**

Complete the following task in TaskStream:

- JUT2: RJUT Task 1

For details about this performance assessment, see the "Assessment" tab in this course.

**Writing Your Literature Review**

In this activity, you are going to synthesize your sources by writing your literature review. Before you start to write your literature review, it is important that you understand the differences between an annotated bibliography and a literature review.

Before you write, review the difference between an annotated bibliography and a literature review. "An annotated bibliography is a list of citations … followed by a brief … descriptive and evaluative paragraph, the annotation" (Cornell University Library, 2009). It serves as the starting point for your literature review, which is a synthesis of all the selected sources you have annotated in the annotated bibliography. Your annotated bibliography is a list of items with notes under each item; your literature review should be organized into subtopics, reporting the findings you summarized from your sources on what worked, what did not, and why.
In your review, you will cite the sources to support your statement of findings. A good example of a full literature review can be found in *Educational Research: Competencies for Analysis and Applications* on pages 32–36.

This topic addresses the following competency:

- Competency 508.2.5: Develop a Literature Review  
  The graduate understands how to organize and develop a thorough and coherent literature review.

### Reading: Literature Review

Review the following section in *Educational Research: Competencies for Analysis and Applications*:

- chapter 3 ("Reviewing the Literature")

Read the following sections in *The Scott Foresman Handbook for Writers*:

- sections 46a and 46b of chapter 46 ("How Do You Use Sources Responsibly?")

Review the following websites for more information on how to conduct a literature review:

- How to Prepare an Annotated Bibliography
- Annotated Bibliographies
- Literature Reviews

### Write Your Literature Review

Follow these steps as you prepare to write your literature review:

1. Review your annotated bibliography and correct any content errors, spelling errors, etc.
2. Read the notes for each citation carefully and categorize them with meaningful labels (e.g., effective use of problem-based learning in teaching writing to fourth graders).
3. Sort and group the citations into two to four categories to create subtopics.
4. Synthesize the resources for each subtopic.

When writing your literature review, follow these guidelines:

- Include an introduction at the beginning and a summary at the end.
- For each theme or subtopic, provide ample evidence from the sources to support your theme. Summarize and paraphrase your sources in your own words.
- Provide in-text citations that are complete and accurate according to APA format.
- Cite at least two sources for each paragraph. A great way to synthesize sources is to cite more than one source at one time when the sources have similar findings.

For example: (Ruszkiewicz, Walker, & Pemberton, 2006; Gay, Mills, & Airasian, 2009). A semicolon separates the references.
• Provide guidance in your writing to help the reader move from one sentence to the next. Walk the reader step by step through the report of your findings by using transitions and linking words to connect sentences, paragraphs, and sections.
• Do not write a long paragraph without citing any sources.
• Make sure you do not discuss your own problem or project in this review of literature.
• Create a list of APA-style references at the end of the review.

Research Paradigms and Research Methods

This subject gives you a brief overview of how research is classified. It will then focus on three types of research: quantitative research, qualitative research, and action research. It will introduce you to differences and characteristics of each as well as advantages and disadvantages. A good understanding of the differences among these three paradigms is critical to understanding of the topics discussed later in the course. The design of each component for a research study hinges on these differences.

Characteristics and Benefits of Research Paradigms

Three research paradigms are presented in your assigned readings: quantitative, qualitative, and action research. The benefits of each will be discussed, and one or more will be more attractive to you than the others.

However, the choice of paradigms is not a matter of personal preferences; rather, it is a matter of the research question that is being answered.

This topic addresses the following competency:

• Competency 508.3.5: Basic Data Evaluation Concepts
  The graduate understands basic concepts involved in the evaluation of data.

Reading: Introduction to Research

Review the following chapter in *Educational Research: Competencies for Analysis and Applications*:

• chapter 1 ("Introduction to Educational Research")

Review the associated *Educational Research: Competencies for Analysis and Applications* multimedia presentation:

• chapter 1 ("Introduction to Educational Research")

*Note: The textbooks refer to research designs as either approaches or methods. In addition, research paradigms may also be referred to as research approaches.*

Write a short response to each of the following questions in your study notebook:

• What are the purposes of each research paradigm?
• What situation is each paradigm most appropriate for?
What are the differences between traditional research and action research?
What type of data does quantitative research collect for analysis?
What type of data does qualitative research collect for analysis?
Which research paradigm states the hypothesis before the study begins?
Which research paradigm employs an inductive strategy (i.e., problems and methods evolve as understanding of the subjects and the context deepens)?
Which research paradigm tends to involve more subjects?
Which type of research uses categorical data analysis?
Which type of research uses statistical methods for data analysis?

Quantitative Research

Quantitative research is the oldest of the research paradigms; therefore, most research concepts are related to quantitative research. It is important that you spend time studying all aspects of quantitative research. You will learn the underlying assumptions of quantitative research, the types of data it collects, the various fundamental designs that fall under this category, and the sampling techniques used in quantitative research.

Characteristics and Benefits of Quantitative Research

Quantitative research is the paradigm that is most likely to use numerical data in order to accept or reject a hypothesis. In quantitative research, the researcher typically works with a sample of data and manipulates an independent variable to look for changes in the dependent variable.

This topic addresses the following competency:

- Competency 508.1.1: Quantitative Research Paradigms
  The graduate understands the components of quantitative research.

Reading: Quantitative Research

Review the following pages in *Educational Research: Competencies for Analysis and Applications*:

- chapter 1 ("Introduction to Educational Research"), focusing on pages 7-11.

Review the associated *Educational Research: Competencies for Analysis and Applications* multimedia presentation:

- chapter 1 ("Introduction to Educational Research")

Write a short response to each of the following questions in your study notebook:

- What are the advantages and disadvantages of the quantitative research paradigm?
- What are the assumptions about the quantitative research paradigm?
- Which scientific method does quantitative research employ? Inductive (bottom up) or deductive (top down)?
- What situation is each quantitative research method most appropriate for?
- What type of data does quantitative research collect for analysis?
When does quantitative research state the hypothesis?
Which type of quantitative research controls the setting and manipulates one or more variables?
How does quantitative research analyze data?
Which research designs fall under the category of quantitative research?

If you need help answering these questions, ask for help from either the course message board or the course instructor. Getting these concepts down is very important for continued success through this course.

**Quantitative Research Methods**

There are a number of quantitative research methods from which to choose. The one that is best depends on the research question. There are methods that examine how much data or results are alike, such as correlational studies. Then there are methods that examine the extent to which data or results differ, such as a t-test or an ANOVA.

This topic addresses the following competency:

- Competency 508.1.1: Quantitative Research Paradigms
  The graduate understands the components of quantitative research.

**Reading: Quantitative Research Methods**

Read the following chapters in *Educational Research: Competencies for Analysis and Applications*:

- [chapter 7](#) ("Survey Research")
- [chapter 8](#) ("Correlational Research")
- [chapter 9](#) ("Causal-Comparative Research")
- [chapter 10](#) ("Experimental Research")
- [chapter 12](#) ("Descriptive Statistics")
- [chapter 13](#) ("Inferential Statistics")

Write a short response to each of the following questions in your study notebook:

- What is the purpose of survey/descriptive research?
- What are the major steps involved in designing and conducting a survey/descriptive study?
- How is survey/descriptive research classified?
- What are three different ways that data can be collected in survey/descriptive research?

**Qualitative Research**

Professionals in the field of education know that data are not always neat and problems are not always simply formulated. Sometimes they are quite messy and amorphous. For these, it seems that traditional research and quantitative methods simply will not do. However, many external agencies are asking for research-based answers to these problems. To solve these problems, the professional teacher should know and apply qualitative research techniques. You will learn
Characteristics and Benefits of Qualitative Research

In qualitative research, the researcher is interested in making non-numerical, non-statistical conclusions about the data that they gather. Researchers are interested in more impressionistic understanding of the data as opposed to measures of correlation or association.

This topic addresses the following competency:

- Competency 508.1.2: Qualitative Research Paradigms
  The graduate understands the components of qualitative research.

Reading: Qualitative Research

Review the following pages in *Educational Research: Competencies for Analysis and Applications*:

- chapter 1 ("Introduction to Educational Research"), focusing on pages 8, 12–16.

Review the associated *Educational Research: Competencies for Analysis and Applications* multimedia presentation:

- chapter 1 ("Introduction to Educational Research")

Write a short response to each of the following questions in your study notebook:

- What are the advantages and disadvantages of the qualitative research paradigm?
- What are the assumptions about the qualitative research paradigm?
- Which situation is each of the qualitative research methods most appropriate for?
- What type of data does qualitative research collect for analysis?
- What is the function of hypothesis in qualitative research?
- What is inductive strategy in qualitative research?
- Which scientific method does qualitative research employ? Inductive (bottom up) or deductive (top down)?
- How does qualitative research analyze data?
- Which research designs fall under the category of qualitative research?

Benefits of Qualitative and Quantitative Research

Create a list of five benefits for both qualitative and quantitative research.

Share it with your peers by posting it to the message board.

Qualitative Research Methods

While there are a large number of qualitative research methods, typical ones include surveys, interviews, observation, and ethnographies. In qualitative research, hypotheses emerge from the data instead of being formed prior to the investigation.
This topic addresses the following competency:

- Competency 508.1.2: Qualitative Research Paradigms
  The graduate understands the components of qualitative research.

Reading: Qualitative Research Methods

Read the following chapter in *Educational Research: Competencies for Analysis and Applications*:

- chapter 14 ("Qualitative Data Collection")

Review the associated *Educational Research: Competencies for Analysis and Applications* multimedia presentation:

- chapter 14 ("Qualitative Data Collection")

Write a short response to the following question in your study notebook:

- What are the main data collection methods for qualitative research?

**Action Research**

As an educator, you will encounter situations where students either are not learning what you would like them to or are not behaving appropriately. How will you handle this problem? You will learn the purpose of action research and how it differs from other research paradigms, the types of data it collects, and its fundamental design.

**Characteristics and Benefits of Action Research**

For this topic, you will learn about action research techniques.

This topic addresses the following competency:

- Competency 508.1.3: Action Research Paradigms
  The graduate understands the components of action research.

Reading: Action Research

Review the following sections in *Educational Research: Competencies for Analysis and Applications*:

- chapter 1 ("Introduction to Educational Research"), focusing on pages 18–19.
- chapter 20 ("Action Research")

Review the associated *Educational Research: Competencies for Analysis and Applications* multimedia presentation:

- chapter 20 ("Action Research")
Understand how action research differs from other traditional research.

Write a short response to the following question in your study notebook:

- What are the advantages and disadvantages of action research paradigm?
- What is the purpose for action research?
- What situation is action research most appropriate for?
- Which types of data does action research collect for analysis?
- How does action research differ from other research?
- Who conducts action research?
- What are the steps for conducting action research?

**Journaling: Action Research**

Most educational professionals conduct some aspects of action research in their practice. Reflect in your study notebook on how you have applied aspects of action research in your teaching. If nothing comes to mind, consider the opportunities where you might have employed it but did not.

**Task 2 Performance Task**

Complete the following task in TaskStream:

- Lit Rev for Education Res: Task 2

For details about this performance assessment, see the "Assessment" tab in this course.

**Final Steps**

Congratulations on completing the activities in this course! This course has prepared you to complete the assessments associated with this course. If you have not already been directed to complete the assessments, schedule and complete your assessments now.