



Engaging Research in Your Content

Overview

What is Research?

Research can mean many different things. In the context of a CTE course, research can evolve from answering a basic question to a complex multistep procedure and report-out. Research, put simply, is the pursuit of knowledge – which can look different across content areas. A more complex definition of research is the systematic investigation into and study of materials and sources in order to establish facts and reach new conclusions.

Types of Research

There are two main types of research: primary and secondary. Primary research is *new* data from the field or laboratory that is collected by a student. Traditionally, CTE courses are very rich in the instructional strategy of primary research. Primary research is a more hands-on instructional approach that connects content to the real-world in the manner in which they would encounter in career and postsecondary. Examples of primary research include observations, surveys, interviews, and laboratory activities.

Secondary research is the review of data that was *previously collected* by another source. Examples of secondary research include, but are not limited to, database searches, case studies, industry articles, technical manuals, and textbooks.

Examples of Primary Research

Examples of Secondary Research



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Research within Your Content

As you unpack the course standards, you will find the verb “**research**” in several standards. This is meant to articulate how a student should be able to engage with the content and should be able to demonstrate proficiency. It is important to note that research may be appropriate in other situations as well, as other words within the standards may *imply* research. Take the next five minutes to complete a close-read of the course description document. Highlight or underline the words that imply research. Examples include: *compare and contrast*, *summarize*, and *analyze*.

Industry Authentic Research Tasks and Related Resources

In the chart on the following page, write the standard number and words or phrases that imply research in the first and second columns. These words and phrases will be directly from the close-read of the course standards. In the third column, classify each of the words or phrases that imply research as either primary or secondary research. In the fourth column, list industry authentic research tasks that may be used to complete this type of research. It may be helpful to refer to the graph on the first page of the worksheet packet for classification notes and examples. Finally, lists example resources students may use to complete the research tasks in the last column.

Example: A/V Production I, Standard 16

Utilize the knowledge of microphones and scientific principles of sound to appropriately select and place microphones for a given production. Connect microphones to camera equipment and other audio equipment using the proper cables. **Compare and contrast** the types, uses, and pickup patterns of various microphones. Create a visual display illustrating pick-up patterns of microphones and listing example scenarios when each is commonly used. **Experiment** with different microphones and predict the pick-up pattern of each. **Consult instructional manuals and manufacturer online resources** to evaluate if the conclusions are correct. (TN Reading 2, 3, 4, 9; TN Writing 7, 9; TN Physical World Concepts 3, TN Physical Science 2)

| Course Standard | Words or Phrases that Imply Research | Classification of Primary (P) or Secondary (S) | Research Task Examples include labs, experiments, observations, interviews, surveys, and reading and interpreting texts. | Resources Examples include technical manuals, textbooks, trade magazines, websites, instructional videos, etc. |
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| Standard 16, A/V Production I | <ul style="list-style-type: none"> Compare and contrast Experiment Consult instructional manuals and manufacturer online resources | <p>Secondary</p> <p>Primary Secondary</p> | <ul style="list-style-type: none"> Determine the different types of pick-up patterns in microphones and their uses by reading and interpreting websites or textbooks. Conduct experiments with different types of microphones to hypothesize the pick-up pattern of each. Consult instructional manuals to determine if predictions are correct. | <ul style="list-style-type: none"> Websites (see resource list) Various types of microphones for experimentation Instructional manuals or online microphone manufacturer resources |

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