



Research and Authentic Writing: Applying Knowledge

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

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



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description document. Highlight or underline the words that imply research. Examples include: *compare and contrast*, *summarize*, and *analyze*.

In the chart below, write the words or phrases that imply research in the first column. These words and phrases will be directly from the close-read of the course standards. In the second column, classify each of the words or phrases that imply research as either primary or secondary research. In the third column, list any instructional methods that maybe 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.

Words or Phrases that Imply Research	Classification of Primary (P) or Secondary (S)	Example Instructional Strategy



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Writing Within Your Content

Writing assignments can encourage students to process course material more deeply. Through writing assignments and prompts, teachers are able to assess students' comprehension of course topics in real world applications. Teachers must provide an opportunity for students to develop writing and research skills in the manner of college and career readiness conventions.

Types of Writing for CTE Courses

Writing-to-Learn

The main purpose of writing-to-learn is to help students think through key concepts or ideas presented in a course. Writing-to-learn assignments are short, impromptu, or otherwise informal writing tasks. These writing tasks provide students an opportunity to reflect on themselves as learners and practice writing as a way to engage with the content initially. Examples include, but are not limited to, think-pair-share, journaling, capturing notes during a lecture, and a one-sentence summary.

Writing-to-Demonstrate Learning

The main purpose of writing-to-demonstrate learning is for the teacher to gauge a student's understanding of the content and/or concepts being taught. By regularly asking students to think and write at higher levels, students are challenged to think through the content and reveal their understanding in more depth. Examples include, but are not limited to, summary of a demonstration, lab report, explanation of a process, and essays.

Writing-to-Apply Learning: The Authentic Writing Task

The main purpose of writing-to-apply learning is to engage students in authentic writing tasks. This creates a bridge between what is learned in the classroom and why this knowledge is important to the world outside of the classroom. Authentic writing tasks require students to demonstrate proficiency by applying existing knowledge to solve a real-world problem in their content, simulating a work-place experience. Examples include, but are not limited to, diet recommendations for a patient, safety Infographic (similar to those found at a work site), proposal, memo, or customer quote.

Process for Creating Authentic Writing Task

Step 1:

Read the course standard. Are there any authentic writing tasks outlined in the standards? If so, you can start this process by simply underlining or highlighting the authentic writing task within the standard. If not, you should think critically about how students are expected to write in their academic and professional career. Let's take a look at an example below.

Example: Culinary Arts I

Standard 19

Distinguish among the different types of knives (i.e. paring, serrated, slicers, utility, and chef's) and explain their elements of construction. Identify and demonstrate the correct use, sharpening techniques, and storage options for each type of knife examined. **Create a how-to graphic outlining the proper safety handling techniques when using knives in the kitchen, citing evidence.** (TN Reading 1, 3, 7; TN Writing 1, 9)



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Step 2:

Refer to the nouns and verbs worksheet from the previous session with the embedded TN State Standards expectations for students. Pay close attention to the referenced standards in the skills section with an embedded Tennessee Writing Standard attached. These embedded standard alignments will assist you in Step 3 as you design your authentic writing task. For example, looking at the Tennessee State Standards for Writing 1 and 9 will assist the teacher in teaching about “writing arguments” and “drawing evidence from informational text.”

Culinary Arts I Standard 19		
Standard	Knowledge	Skills
Distinguish among the different types of knives (i.e. paring, serrated, slicers, utility, and chef’s) and explain their elements of construction. Identify and demonstrate the correct use, sharpening techniques, and storage options for each type of knife examined. Create a how-to graphic outlining the proper safety handling techniques when using knives in the kitchen, citing evidence. (TN Reading 1, 3, 7; TN Writing 1, 9)	<p>Knives</p> <ul style="list-style-type: none"> • Paring • Serrated • Slicers • Utility • Chef’s <p>Elements of Construction</p> <ul style="list-style-type: none"> • Tang • Handle • Rivet • Heel • Edge • Blade • Bolster 	<p>Distinguish</p> <ul style="list-style-type: none"> • R1 Cite Textual Evidence • W1 Arguments <p>Explain</p> <ul style="list-style-type: none"> • R1 Cite Textual Evidence • W9 Draw evidence to support reflection <p>Identify</p> <ul style="list-style-type: none"> • R1 Cite Textual Evidence • W9 Draw evidence to support reflection <p>Demonstrate</p> <ul style="list-style-type: none"> • R3 Multiple step procedure <p>Create</p> <ul style="list-style-type: none"> • R7 Translate technical information into visual form • W9 Draw evidence to support reflection



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Step 3:

Design your authentic writing prompt or task based on skills students need to develop in the course.

Culinary Arts I

Standard 19

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Create a how-to graphic outlining the proper safety handling techniques when using knives in the kitchen, citing evidence. (TN Reading 1, 3, 7; TN Writing 1, 9)

Writing Prompt:

Congratulations! You are hired as the head dishwasher at the local hotel. In the past, there have been numerous violations of proper knife safety, leading to workman comp claims. Your manager gives you the duty of creating an infographic on proper knife safety and cutting techniques.

Step 4:

Ensure the expectations of the writing assignment task are clear and precise.

Ask yourself these guiding questions:

- What is the purpose of the writing prompt or task?
- Which of the Tennessee State Standards conventions does it follow?
- Does the writing prompt or task follow the description in the Tennessee State Standards?



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Bridge to Practice

It's your turn!

Questions about this process or need assistance? Please contact CTE.Questions@tn.gov.

Follow the four-step process outlined above with a course of your choosing using the blue templates below.

Standard	Writing Prompt or Task