Teaching Writing in the Content Areas: Research to Practice

By Dr. Ruslana Westerlund



Overview

This in-depth <u>Colorín Colorado article</u> from Dr. Ruslana Westerlund explains why writing is hard for students and walks educators through a teaching and learning cycle that can help students develop writing skills within disciplinary genres.

Dr. Westerlund's other Colorín Colorado articles include:

- Eight English Learner Myths for Administrators
- Partnering with Ukrainian Families: Tips for Schools

See article: https://www.colorincolorado.org/article/teaching-writing-content-areas-research-practice

About the Author

Ruslana Westerlund, Ed.D., is a Ukrainian-born educational consultant, linguist, and author. A leading expert on Multilingual Learner instruction and Systemic Functional Linguistics (SFL), she is based at the Language and Culture Center of Wisconsin's Cooperative Educational Service Agency (CESA) 2 and specializes in the implementation of the WIDA English Language Development (ELD) Standards. Prior to CESA 2, she was a researcher and developer at WIDA, where she contributed to the development of the 2020 edition of the WIDA ELD Standards. Her research has been published by *Journal of English Learner Education, MinneTESOL, ASCD, Language Magazine*, and Colorín Colorado. She has also co-authored several Routledge books, including *Making Language Visible in Social Studies: A Guide to Disciplinary Literacy* with Sharon Besser, *Scaffolding for Multilingual Learners in Elementary and Secondary Classrooms* with Luciana de Oliveira, and *Building the Language Toolkit for Teaching the WIDA Standards* with Sally Humphrey and Olga Malin (2025). In addition, Dr. Westerlund authored *From Borsch to Burgers: A Cross-cultural Memoir*, a memoir about her journey from Ukraine to the U.S. and the making of her transcultural Ukrainian-American identity. She is a volunteer in her local and global Ukrainian community and President of the non-profit Friends of Ukraine, Madison, Inc.





"It's hard to explain. It's easier to point and show."

— Lorenzo, a third grade English learner

Introduction

When I was doing research several years ago, I met a student whom I will call Lorenzo. Lorenzo said the above words in the middle of a science lesson when the teacher handed out science journals and asked students to explain how electricity works — in writing. The students had just finished a successful science experiment with an LED light, battery, and copper wire. They had talked about what worked and what didn't, and now they were taking out their science journals to answer questions related to the experiment. Yet even though Lorenzo had completed the experiment successfully, he couldn't do the writing assignment.

Most of us have heard similar phrases uttered in frustration many times and found ourselves frustrated too because we love our students and want them to succeed. In this article, I will try to explain the reasons many students find writing difficult by answering the question, "Why is writing hard?" and then offer some steps teachers can take to address those challenges. This article is informed by some insights that I have gained through my research with classroom teachers in science, math, social studies, secondary ELA classrooms, and K-5 literacy blocks. I also offer some reflection questions and ideas for using this article in professional learning at the end.

Note: While the experience of multilingual students is centered in this article, the challenges and solutions I outline are relevant and appropriate for all students. In addition, this information can be used by content-area specialists, as well as English learner (EL)/multilingual learner (ML) specialists.

Why is writing hard?

Reason #1: Writing is assigned and not taught

The first thing we can learn from Lorenzo is that he was *assigned, but not taught, writing*. This is the prevailing writing pedagogy in the U.S. — process writing. The process writing approach puts most of the responsibility for learning how to write on the student, relying on peer feedback or teacher scribbles in the margins.





Dr. Maria Brisk, who has been researching writing in Boston Public Schools for the last decade, describes this approach as "assigning and not teaching" (Brisk, 2022). In these classrooms, emphasis is on the process of drafting, editing, and revising not on explicit teaching of how to write for certain purposes (Brisk, 2022; Hyland, 2003; Westerlund & Besser, 2021).

For example, Lorenzo might have been taught about writing a first draft, but he likely was not taught how to write in the genre of a science explanation, or how to express causes and effects through compound sentences. He picked up his journal after the science experiment and found himself staring at the journal without knowing how to translate that experience — which he understood and could talk through — into a coherent explanation on paper. No wonder he was frustrated.

Reason #2: Writing is disconnected from content areas

Lorenzo's dedicated writing instruction happened in the morning literacy block, which is when writing often takes place in elementary classrooms. Content learning usually takes place in the afternoon, when students are learning science and social studies. And in a typical elementary school schedule, the writing block and the afternoon science block do not intersect. In Lorenzo's case, writing in the morning block was about chocolate milk, "small moments", and pets; as a result, Lorenzo struggled to write about magnetism and electricity. This made writing in science very difficult for Lorenzo indeed.

Why hadn't writing about chocolate milk and pets prepared Lorenzo to explain how electricity works in science? There may be several reasons. One main reason that I have found in my research is as follows: Most classroom teachers teach content and concepts, but they don't explicitly teach students how to explain those concepts in writing. Nor do they explain the features that are relevant to the genre or purpose for writing. Writing is assigned in content classes, and not taught, because writing is seen as part of the ELA classroom or literacy block. Yet to succeed with his science assignment, Lorenzo needed to understand that science explanations require abstract and precise language to explain the inner workings of the phenomena. This example shows the rich opportunities available when we connect the science and literacy blocks. Students' content area classes give them plenty of topics for their writing assignments, such as magnetism and electricity, geography, and our local community.

Reason #3: Just because students can talk about it, they may not be ready to write about it

Often teachers say to students, "If you can talk about it, you can write about it." In phenomenon-based science teaching, Lorenzo had lots of hands-on experience with the topic at hand in the class. He had plenty of opportunities to (a) talk, (b) experience an abstract concept of electricity through hands-on learning, and (c) discuss what worked and what didn't. There was high engagement in the classroom of learning and talking.





Yet that experience didn't automatically translate into his ability to use language in the written mode. And Lorenzo didn't even have to write a full "essay." The task was to explain how electricity works in his science journal, which only required three sentences or so. And yet, he struggled to consolidate his learning on paper, even with activities and scaffolds such as graphic organizers and sentence frames.

This leads us to another reason writing is difficult: writing for academic purposes **is not just speech** written down.

Unlike speech, writing is a fairly recent human invention and represents our experiences in a different mode. While speech is fluid, spontaneous, dynamic, and unrehearsed, often accompanying action with objects, gestures and other non-verbals filling in the gaps in meaning, writing is different. Writing is different because it happens after the experience. Those are two extremes to describe differences between writing and speaking, but it is important to consider why the difference exists in the first place, which is mainly because writing happens after the experience. Because of this timing, written language requires a tighter cohesion for the reader to be able to track who is who and what is what. In writing, language does all the work, because there are no gestures or other nonverbals to fill in for loose cohesion, false starts, incomplete sentences, and sentence fragments that occur in speech.

This is not to say that there are other instances where spoken language has written features (a formal lecture) or written language has spoken features (a text message), but for the most part, the written language of schooling expected from students in written assignments falls mostly on the written-like end of the mode continuum. In the case of Lorenzo's classroom, the teacher assumed that because students experienced an event (conducting an experiment where they had to make a light bulb go on), they could write about it. As Lorenzo's experience shows, that wasn't the case.







The Teaching & Learning Cycle for Disciplinary Genres

So what might have Lorenzo's teachers done differently? I'm going to walk you through a pedagogical cycle called the Teaching and Learning Cycle (TLC-DG — see Figure 1). The goal of this cycle is to help students achieve disciplinary literacy through explicit teaching of writing in the service of learning. This process is particularly powerful when content area teachers collaborate with ELL specialists who are experts in language development. Referring to the graphic and table, you can follow this step-by-step approach for teaching writing.

Figure 1. The Teaching and Learning Cycle for Disciplinary Genres (Westerlund, R., 2024)







It starts with planning and identifying the summative genre (blue), and then providing experiences, talk, research, reading and conceptual development (red). Then the teacher guides students by deconstructing the mentor text to study the language of the genre (orange), followed by joint construction of the new genre by negotiating language and meaning together, inviting students' contributions to shape the text together (yellow).

Only then, students write the text individually and in some cases in pairs or with teacher help, especially for newcomers (green). The final step is reviewing and analyzing student data to see how the student met the content standard and the language standard connected to constructing science explanations (teal). Teachers who have learned this pedagogy in my training call it, "Don't jump from red to green." Jumping from red to green means assuming that just because students had an experience, they are ready to write about this experience.

Step	Activities	Color
1. Planning with the End in Mind	 Identifying the learning objectives, assessments, and genre 	Blue
2. Building Knowledge About the Field	 Building conceptual knowledge, activating schema, providing shared experiences, and researching to focus on knowledge building 	Red
3. Text Deconstruction	Deconstructing mentor texts to study the language of the genre	Orange
4. Joint Construction	Creating a new text together	Yellow
5. Individual Construction	• Students writing their own text individually, or in some cases, in pairs	Green
6. Analysis & Reflection	• Reviewing and analyzing student data to see if students met the content and language standards related to the genre	Teal

Table 1. The Teaching and Learning Cycle for Disciplinary Genres: Step by Step







What does the research say?

This pedagogy has its origin in Australian classrooms where educational linguists have observed inadequate redistribution of resources, and, ultimately, power among marginalized youth. Rothery, Stenglin and other researchers discovered that aboriginal children in Australian schools were writing exclusively personal recounts and were not apprenticed into writing in the disciplines as a vehicle for learning (Rothery, 1994). In response to that educational inequity, they developed a pedagogical cycle for teaching disciplinary genres which they simply called the Teaching and Learning Cycle (Rothery, 1996). It was based on a Vygotskyan sociocultural theory of learning where learning is a social process of apprenticeship with the learner being guided in every step of their new learning endeavor.

In addition, several studies of teaching writing in science (de Oliveira & Lan, 2014; de Oliveira & Wilcox, 2017; Brisk, 2022; Fang, Z, 2005; Malin & Westerlund, in press; Rosa & Hodgson-Drysdale, 2023) show that not only can we integrate writing in science, but we should. When writing is positioned as integral to science learning for the purposes of consolidating and strengthening scientific reasoning, writing is an extension of science learning, not an additional decontextualized activity in grammar and punctuation (Graham, Kiuhara, MacKay, 2020). Rosa and Hodgson-Drysdale (2023) were able to illustrate how to teach writing in science to Multilingual learners when they only had 90 minutes per week dedicated to science. Malin & Westerlund, (in press) demonstrated how to teach writing of science explanations in a 30-minute pull-out setting with students new to English.

Graham et al (2020) found that incorporating writing activities related to science, social studies, and mathematics content consistently improved learning outcomes across subjects and grade levels, with an effect size of 0.30. The authors suggested that integrating writing for disciplinary purposes into instruction is consistently beneficial, encouraging educators to consider these practices to enhance student learning across various subjects and grade levels.





The Teaching and Learning Cycle: Step by Step

The Teaching and Learning Cycle for Disciplinary Genres is an apprenticeship pedagogy cycling through 6 phases that accomplishes the following:

- 1. It positions writing in the service of learning by integrating it with content knowledge, reading, writing, and speaking.
- 2. It teaches the disciplinary genre explicitly by deconstructing and jointly constructing a model text together.
- 3. It positions learners as successful and capable writers who can learn any school genre by teaching writing and not assigning writing.
- 4. It draws on Systemic Functional Linguistics, a theory of language that positions language as a dynamic system of choices to make different kinds of meanings.

In this approach, writing is embedded in content-area learning and is scaffolded through the following activities in each stage of the TLC-DG (Table 7). Please note that these examples record activities of a teacher who participated in this research.

Phase I: Planning with the End in Mind

The first phase is called "planning with the end in mind." In this phase, educators:

- 1. Identify the learning goals for the unit
- 2. Identify how that learning will be measured (summative assessment)
- 3. Identify the summative genre that matches the summative assessment

In the case of the lesson on electricity in Lorenzo's class, this would look like this:

- 1. Learning goal: Students will learn what electricity is and what stored energy is, using a battery
- 2. **Summative assessment:** Students will write a science explanation explaining what electricity is and how it works
- 3. Summative genre: Science explanations







Phase II: Building Knowledge of the Field

The next phase involves building students' knowledge of the field. This includes connecting content to students' lived experience, as well as starting to build some background knowledge.

Here are some examples of what this might look like:

Connect to students' experiences around the use of electricity in daily lives. For example, <u>students can</u> <u>share their experiences</u> and ideas and how they currently understand electricity. Remember to identify <u>students' existing funds of knowledge</u> and <u>never make assumptions</u> about the kinds of background knowledge that students do or do not have.

For example, you might ask what electricians do and whether your students know any electricians or what kinds of training electricians need in their work. By activating students' background knowledge, you may also identify some misconceptions students have about this concept — this is where collaboration between content and ELD specialists can be quite valuable.

Build students' knowledge by providing experiences and <u>realia</u>, observing phenomena outside or inside, and <u>watching videos</u> with subtitles and revoicing key concepts and ideas of electricity uses explained for scientific purposes. Discuss the video using a focal question. Jot down a few key phrases to begin introducing language for the key concepts.

Provide activities for students to experience an abstract phenomenon through a hands-on experiment. Ask students for their initial claims about how electricity works. Students can then show their electric circuit and discuss what they have observed so far. Teach students that their initial claims might be revised and teach them how to hold those ideas lightly, especially if the concept is new. Tell students scientists constantly revise their ideas in light of new data.

Throughout these activities, it's important for the teacher to take notes about the language students use when talking. As the teacher walks around supporting students' understanding, the teacher can take the opportunity to revoice/recast students' everyday language with more specialized language "flow" — "power source". This is not error correction — this is an opportunity to help students articulate their ideas through precise language when they reach for words to discuss concepts.





Teaching the procedural recount

So how can teachers help students make this leap? As noted above, when writing in the disciplines, such as writing up a science experiment, we do not just write down what we said when doing the experiment; instead, we go through a process of translating our everyday speech into specialized and discipline-specific language. In order to do this, students need explicit teaching of how language works in disciplinary genres across the years of schooling.

Table 2. Distinctive features of spoken-like vs. written-like language (based on Brisk, 2022; Derewianka & Jones, 2023; and Halliday, 1985).

Spoken-like: Language Accompanying Action	Written-like: Language in Reflection	
Dialogue:	Monologue:	
Interactive	Sole responsibility	
 Jointly constructed with others 	Distanced in time and space	
Shared knowledge and assumptions		
Spontaneous:	Planned:	
Unrehearsed / fleeing	• Frozen	
First draft	• Edited	
Form and setting:	Form and setting:	
Flowing and intricate	Compact and dense	
Embedded in physical setting	Independent of physical setting	
Example:	Example:	
"Let me see. This doesn't work. Put this over here. It needs this to work. These don't need to touch. No, don't do that."	"Electricity requires a path to flow through. For electricity to work, it needs an energy source, such as a battery. It requires a conductor, a special wire that carries energy from one end of the source, which connects back to the source at the other end. It creates a closed circuit for electricity to flow through. That's how electricity works."	







"Translating" spoken language into written language

Table 3 illustrates how you might help students "translate" students' spoken language into specialized language of the discipline. This is where key vocabulary is introduced, not through pre-teaching, but introducing it after the experience as a micro-scaffolding interactional strategy. Here's how you would do this: The teacher and students collect language for the purpose of explaining a phenomenon, with students contributing everyday phrasing (on the left) and then the teacher teaching students how to rephrase that into a scientific and specialized language (on the right). Students can also use their texts on the same topic to contribute to the specialized phrasing. (Keep in mind that an ELL specialist can identify some of these key phrases and terms.)

Table 3. Activity to translate everyday language into specialized language

Everyday Phrasing	Scientific Phrasing
Makes it go through	Conducts
The battery	The power source
This side	The positive side of the battery
That side	The negative side of the battery
Energy goes	Energy is transferred
This goes here	The wire is connected

Teachers can use a scaffold through a procedural recount, which students can do orally to explanations. The procedural recount will help them process what happened and what results were achieved. That understanding can help them move toward an explanation of how electricity works.







Table 4. Classroom activity to contrast procedural recount vs. an explanation

This chart shows the difference between procedural recounts and explanations. For a more detailed examination, see this in-depth <u>comparison chart</u>.

Explanation: How Electricity Works	
Electricity is a form of energy. It requires a path to flow through. For electricity to work, it needs an energy source, such as a battery. It requires a conductor, a special wire that carries energy from one end of the source, which connects back to the source at the other end. It creates a closed circuit for electricity to flow through. That's how electricity works.	
 This is an explanation because: It has a statement of a phenomenon: Electricity is a form of energy. 	
 It has an explanation sequence telling what causes what to happen answering the question, "How does electricity work?" It uses timeless present versus past because electricity works like that regardless of time (requires, needs, carries, connects, creates, 	







Phase III: Deconstruction: Introducing the genre

This phase is where students dig into the genre. It is the phase for dedicated, explicit teaching of the language features students will need for the summative genre. So how might Lorenzo's teacher teach about science explanation genre?

1. First, the teacher shares an example of a mentor text.

2. Next, the teacher guides the students in <u>deconstructing the mentor text</u> or a model response asking questions like:

- What's the purpose of this text?
- How is the text organized?
- What's at the beginning?
- How many sentences does it have?
- How are sentences connected?
- How is precision created?
- How is this genre (explanation) different from a procedural recount?

3. Next, create genre specific language anchor charts. See Figure 2.

For example, the teacher and students can create a <u>T-chart</u> of everyday and specialized language features on the board to add precision to their ideas, as well as key terms such as, "the positive side", "the negative side", "is transmitted", "conducts." (See Table 3 and Figure 3.) This activity helps students learn the language needed for the new genre, including the genre's organizational features.

Sample guiding questions might include:

- What language will we need to write for an audience who didn't participate in the experience with us?
- Can we start with "it", "they" or do we need to name our objects and processes?

Through this process, the teacher and students deconstruct text to see the pattern of meanings through <u>Theme and Rheme</u> which creates cohesion across text, sentence by sentence, as seen in Table 5.







Anchor Chart for Student Unit: Electricity

Goal: Students will construct a science explanation about how electricity works.



Table 5. Theme and Rheme examples

Theme (Given)	Rheme (New)
Everything in the universe	is made of tiny objects called atoms.
Each atom	has even tinier particles called protons and electrons.
These tiny particles	swirl around each other continuously.
A proton	has a positive charge.
An electron	 has a negative charge.
Positive and negative charges	try to pull each other together.
However, two positive charges or two negative charges	will push each other away.
Electricity	results when electrons are pushed and pulled from atom to atom.





How language works in science explanations

In addition, another key step Lorenzo's teacher could take is to help students understand how language often works in science. Language in science is typically taught as vocabulary words, which are very important, but vocabulary alone is not sufficient for students to construct explanations and provide evidence to their claims. That's why the framework of Discourse, Sentence, and Word levels can help us to think what other language students may need in addition to vocabulary. When teachers understand how language works in science texts, it can empower them to teach writing explicitly beyond vocabulary or sentence level worksheet writing. Ultimately, it can help all students to understand how writing supports learning science and what language resources they need to articulate their knowledge (Table 5).

Phase IV: Joint Construction

In this stage, the teacher and students together create an anchor chart; the teacher writes on the board and talks about language needed for science explanations using color-coding, such as red for noun groups and green for verb groups. (See Figure 3 below.)

The teacher and students jointly construct the text following Theme and Rheme pattern from Deconstruction. They draw arrows to show how information at the end of the sentence now goes to the beginning of the sentence. Joint construction is more than shared writing and includes a careful negotiation of meaning and crafting of students' contributions to match the desired genre. This phase is the best illustration of apprenticeship where the teacher and students jointly construct the text to match the summative genre. The teacher and students create language anchor charts together with:

- Abstract nouns: Terms used to talk about phenomenon, e.g., electricity
- **Timeless present verbs:** These indicate something that always happens, e.g., flows, lights up, conducts
- Non-human participants realized as noun groups: These include examples such as the positive side, the negative side
- Causal language: These can include "When" clauses...
- Passive voice: This focuses on the process, not on human agency

Phase V: Independent Writing

Students write referring to the anchor charts, writing on the board, and the deconstructed and jointly constructed mentor texts. They use the student-friendly checklist to help them guide their writing. During this time, newcomers can work with a partner or request the teacher's help to develop a writing sample.







Discourse Dimension: How ideas are organized at the whole text level

Stages of text in causal explanations:

- Identification of the phenomenon
- Explanation sequence
- Causal connectives (as a result of, for that reason, as a consequence, because of this, therefore) to connect text throughout
- Text connective "this" refers to the whole paragraph above

Sentence Dimension: How ideas are connected through sentences

- Timeless present tense to express generalizations (e.g., Energy requires a path to flow through.)
- Compound sentences to express causes and effects (e.g., When I put too much tape, the energy doesn't flow.)
- Passive voice to talk about the object undergoing the process (e.g., Energy is transmitted.)

Word Dimension: How ideas are represented through words

- Causal verbs (e.g., leads, causes, makes ... happen)
- General, topic-specific, non-human participants, abstract nouns (electricity, energy)
- Noun groups carry a great deal of meaning with technical premodifiers and prepositional phrases (e.g., a positive side of the LED battery).





Figure 3. Noun and verb groups Figure 4. Jointly constructed explanation Verb Phrase The battery and the lightbul the long w were connected to make the short wire the LED light bulb lightur e positive side The negative side The battery You have to have the battery on the positive 101ce side and the alum our The LED light foil connected to the negative lights up The aluminum fail Side. The long wire of the conducts Electricity LED light bulb has to be 15 transmitted connected to the positive side Flashlight of the batter to make the DOSSIVE The positive side of the LED battery VOIC lightbulb light 40 + 100) CO 200 200 20 Conductor

Phase VI: Analysis and Reflection

In this stage, the teacher collects student work and reviews it according to the learning goals for language and content identified earlier. The teacher also identifies next steps in teaching the disciplinary genre based on observed patterns in students' writing. In this science unit, some review questions might be:

- How is students' understanding of how electricity works?
- Were students able to express their knowledge using precise language?
- Did the students explain what causes what to happen using causal language?
- Were students able to explain a phenomenon or just recount steps in the experiment?





Summary of Key Ideas



Here is a summary of key ideas for teaching writing to multilingual students:

- 1. Position writing in the service of learning by integrating writing into all content areas by focusing on key disciplinary genres.
- 2. Do not assess everything students write. Focus on key cumulative tasks. Writing should not always equate assessment. Writing is, first and foremost, an extension of knowledge.
- 3. Apprentice students into the disciplinary genres by teaching writing in the disciplines, not assigning writing.
- 4. Create genre-specific language anchor charts. See an example here, p. 8.
- 5. Allow students who are literate in their first language to write in their first language because it will help them show their knowledge. Knowledge is knowledge in any language.
- 6. With newcomers, give students a genre template and show them the genre structure with sentences started for them that show how the paragraph and sentence openers work.
- 7. Explicitly teach language in the written mode by showing how cohesion works in writing versus speaking.
- 8. Create mentor texts and model responses and deconstruct them with students:
- Start text deconstruction at the whole text level to orient students to the purpose of the text and the genre.
- Cut up the text into meaningful sections and discuss the function of each section.
- Circle the meaningful language chunks critical to the genre (noun groups in reports, causal links in explanations, language of place & time in setting narratives, doing, saying, feeling verbs that develop character, reporting verbs for bringing in other voices in arguments and many others). The <u>WIDA 2020 ELD Standards</u> have more language features connected to their functions and the disciplinary genres (called Key Language Uses).

Note: For more deconstruction activities, see *Making Language Visible in Social Studies: A Guide to Disciplinary Literacy* that I co-wrote with Dr. Sharon Besser.





Closing Thoughts

We can see after going through this process that if Lorenzo experienced an apprenticeship pedagogy over the course of the year where he was explicitly taught how language works in disciplinary genres, he would have had more chances at succeeding as a writer. The good news is that these processes can be learned and practiced — giving students the path forward they need to successfully write in academic areas.

Applying What You've Learned

This is a process that takes practice, and so we've compiled some resources for you:

- <u>A blank anchor chart</u>
- <u>A comparison chart with additional detail</u> about procedural recounts
- <u>Teaching with the WIDA 2020 ELD Standards in a Second-Grade Literacy Block</u> by Dr. Ruslana Westerlund
- <u>Scaffolding Multilingual Learners' Access to Wisconsin Social Studies Inquiry Through the WIDA</u> <u>ELD Standards</u> by Dr. Ruslana Westerlund and Elizabeth Folber

Professional learning: Reflection questions

- What are some writing tasks that your students find challenging?
- Why do you think those tasks are challenging for them?
- After reading this article, how has your understanding of those challenges changed?

Professional learning: Activities

- Share this article in a professional learning community. Ask your colleagues to identify a writing task that they and a colleague could teach through the Teaching and Learning Cycle. How would they do so?
- What are some writing skills that could be embedded into language arts/writing blocks? How might colleagues collaborate to coordinate that instruction?





Table 7. Activities in the Teaching and Learning Cycle

Stage	Activities
Planning with the End in Mind	 Identify the learning goals for the unit and how that learning will be measured (summative assessment). Identify the summative genre that matches the summative assessment.
Building Knowledge of the Field	 Connect to students' experiences around the topic in their daily lives. Watch videos with subtitles and revoice key concepts and ideas. Discuss the video using a focal question. Provide activities for students to experience an abstract phenomenon through a hands-on experiment. Allow students to discuss their initial ideas of what worked and what didn't. Make notes of the language students use when talking.
Deconstruction	 This phase is the genre knowledge work. It is the phase for dedicated, explicit language teaching of the language of the genre and the language features students will need for the summative genre. The teacher guides the students in deconstructing the mentor text or a model response, asking questions like: What's the purpose of this text? How is the text organized? What's at the beginning? How many sentences does it have?







Stage	Activities	
	 How are sentences connected? How is precision created? How is this genre (explanation) different from a procedural recount? 	
Joint Construction	 This phase is the best illustration of apprenticeship where the teacher and students jointly construct the text to match the summative genre. Teacher and students together create this chart by the teacher writing on the board and talking about language needed for the genre using color-coding: red for noun groups and green for verb groups. (See Figure 3.) Teacher and students jointly construct the text following Theme and Rheme pattern from Deconstruction. They draw arrows to show how information at the end of the sentence now goes to the beginning of the next sentence. Joint construction is more than shared writing and includes a careful negotiation of meaning and crafting of students' contributions to match the desired genre. 	
Independent Writing	• Students write independently, referring to the anchor charts, writing on the board, and the deconstructed and jointly constructed mentor texts.	
Analysis and Reflection	 In this stage, the teacher collects student work and reviews it according to the learning goals for language and content identified earlier. The teacher identifies next steps in teaching the disciplinary genre based on the observed patterns in student's writing. 	





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