



From Science to Stories

Analyzing and Creating Picturebooks in an English Learner Classroom

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Abstract

English learners (ELs) arrive to the high school classroom with greatly varying experiences of learning about the climate crisis. If they have learned about the climate crisis in school, they have likely learned mostly about it via science. In an attempt to move towards a curriculum that includes ideas about the values, behaviors, and actions related to the climate emergency, I created a unit in my advanced EL Reading and Writing course that uses picturebooks to learn about the climate emergency and engage in a real-world writing task.

Keywords

Picturebooks, multimodal writing, school partnerships, English Learners, authentic writing tasks

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Context

The students in my secondary English Learner (EL) classroom have had a mixed experience learning about the climate crisis. Before I start our fourth-quarter unit on informative writing and the climate crisis, I always survey them. What do they know about this thing called “the climate crisis”? What does that mean to them? Have they learned about it before? If so, where and how?

Their responses were all over the place. Some were able to rattle off a series of facts about the science of the crisis or mention the ways humans have contributed to the problem. Many others, however, reply along the lines of: “I’ve heard of it, but I don’t really know what it means.” Given the range of my students’ responses, the task of designing a unit that tackles this issue—while also targeting academic reading and writing—seemed like a pretty intimidating job!

My students are English Learners. Although our program includes co-taught content classes, the class I teach independently is our Advanced Reading and Writing course for students who are orally proficient in English, close to exiting out of the EL program, and need a final boost in academic writing before they are mainstreamed in Language Arts. It is in this class that I committed, several years ago, to including a unit on climate. Given my learning targets, I have a lot of freedom in what we read and write about with no prescribed “curriculum” to follow.

Like many of us, I’d been feeling increasingly distraught about the vastness of the climate crisis. Yet I noticed that my students didn’t have a very strong working knowledge of it. After a little digging, I realized that my students, as ELs, may have missed specific teaching about climate within their content courses. Creating a unit to help them understand the issue felt like one way I could possibly affect some change, however small.

That first year, I did my best to cobble together a unit from the amazing—but overwhelming—number of online resources on climate science. There were plenty of teachers’ and schools’ ideas to draw from; I ended up focusing on climate science. It felt tricky to balance underscoring the gravity of the climate crisis and making sure I wasn’t losing students’ attention to a science-y rabbit hole (or the sheer magnitude of the issue). Eventually, I shifted the unit to be transdisciplinary, which has made a positive difference in how the students respond to the ideas.

Rather than focusing only on the science of the climate crisis, recent scholarship has advocated for a more transdisciplinary approach via an “understanding of the climate emergency that centers on developing values, attitudes, and behavioral change aligned with living well with one another in a climate changing world” (Oziewicz, p. 34, 2023). We’re going to need to more than knowledge of the science to

get people to change their way of doing things. Oziewicz’s and others’ work suggests that stories are especially helpful to engage young people in thinking about a future for our world. In asking myself how I could make my teaching reflect this change, I identified several changes for my revamped unit:

- Dial back the science-based content
- Include stories as an integral part of the unit
- Make a real-world writing task (rather than the essay I’d had them write previously)

I decided to spend some time addressing climate science—especially since I had students who didn’t have much prior knowledge of it. However, I included picturebooks as an integral part of the unit, since these often address the social and emotional aspects of climate-related issues. By focusing on stories, we are able to bring human attitudes, traditions, and beliefs into the picture. I also created a writing task that reflects the readings: we created picturebooks about an aspect of the climate crisis that my students then read in-person to a group of younger students.

Part 1: Building Background

To open the unit, we spent two weeks on the basics of the climate crisis. Since the focus of my class is literacy, we did this primarily through reading and writing about what we read. This year, I chose the graphic anthology *Drawn to Change the World: 16 Youth Climate Activists, 16 Artists* as a primary text. It includes a brief but robust overview of the climate crisis before highlighting the stories of sixteen youth activists.

Sticking to this text as an introduction to climate science—rather than a mishmash of academic overviews as I’d done in the past—allowed me to limit the number of rabbit-holes we’d be tempted to go down. We read the introduction using our active reading protocol and supplemented the textual information by watching some of the explainer videos available online. We focused on specific topics, such as the carbon cycle and the greenhouse effect. In general, I kept the scientific information brief; I reiterated that students could do their own deep dive if they are particularly interested in a certain topic. I made one other notable shift too: I included picturebooks as part of the “building background” stage. I wanted students to be exposed to as many of these books as possible from the get-go, since they’d be creating their own books. I also wanted to emphasize the role of stories in learning and thinking about the climate crisis. Some days, we read these books as a warm-up followed by a short writing reflection; other days they were the center of the lesson.

Part 2: Analyzing Picturebooks

In the next phase, we looked closely at the picturebooks we'd read. Students knew that they'd be creating their own picturebooks, so we had that in mind as we analyzed the structure, theme, literary devices, and visual elements used in these books. In choosing texts, I considered cultural representation, which climate-related topics were covered, genre, and illustration style.

Together, we practiced analysis using *The Fate of Fausto* by Oliver Jeffers. Students then chose two to three titles to examine with a partner, using the form. After this activity (which took two to three class periods, depending on the group), students had been exposed to at least six texts. This had a double benefit: 1) getting them to think about issues related to the climate crisis, 2) sparking their interest in the way authors choose to present these issues in the picturebook medium.



Part 3: Conducting Research and the Book-Writing Process

To begin our book-writing process, students worked independently to brainstorm topics that interested them. They each chose a sub-topic and practiced summarizing the video or short text about that sub-topic (see [Slide 16](#)). For this class, I provided their sub-topic text, as I wanted students to focus on summarizing and reflecting rather than searching for available titles. This way, I was able to model the type of summarizing and reflecting I wanted them to accomplish (see [Slides 17-23 in the deck](#)). Students then followed the same methods on their own. After this, they worked with a partner to ideate ways of turning those topics into a picturebook script. Every day during this part of the unit, we read at least one picturebook together as a warm-up, so we had many different examples to reference. We also learned from a class visit by our fabulous librarian, who presented on the writing process particular to picturebooks.

As students worked on their own, I began class periods with mini-lessons and warm-ups designed to address some of the writing challenges and objectives I wanted to address (see “Additional Resources” at the end of the Slides deck, [Slides 68-93](#)). This part of the unit will sound familiar to any teacher of writing: the challenge is to keep those who are dragging their feet moving along while providing enough feedback for those who are flying. The two-week period was both challenging and hopeful. Students wrote drafts, found ways to illustrate, scrapped ideas that weren’t working, revised with peers, sat with me to work through drafts, sometimes got frustrated, sometimes felt success, and generally experienced what all writers do: the messy process of writing. To let students experience this process, teachers need to devote enough time for it to unfold.

Students found particular motivation in knowing that their writing would be turned into an actual book that other people would read. I made it clear that no work will be “published” unless it’s gone through lots of revision, is thoughtful and high-quality, and is finished in time. My students understood this and found it to be fair.

Part 5: Reading Books to Younger Students

After publishing the books (a task that fell to me during prep time and after school, and involved using the school color printer, book-binding machine, and materials I’d purchased with grant funds), we were ready to put ourselves out into the real world. We practiced by reading the books aloud in class to one other. We then took a bus to our elementary school for a visit I’d arranged with my EL colleague. It was a success. There was a wow-factor with the super-cool teenagers and snacks I’d brought, but the act of reading youth-written books engaged both high school and elementary students. We

split into pairs, and the attention of the elementary students was rapt. As far as my often-apathetic students: I'd never seen this level of engagement. They took it seriously, and it made me commit to including more real-world writing tasks in my curriculum. Even the students who didn't have their own published books were engaged; we brought several picturebooks we'd read in class for them to read instead. I watched them go through three to four books each, rotating texts because the first graders didn't want the reading date to be over.



At a Glance

Title	Climate Literacy: Analyzing and Creating Picturebooks
Unit Time	4 - 5 weeks
Grade Level(s)	9 - 12
Core Text	<u>Drawn to Change the World: 16 Youth Climate Activists, 16 Artists</u> by Emma Reynolds (ed).
Supporting Texts	<ul style="list-style-type: none"> • <u>Black Beach: A Community, and Oil Spill, and the Origin of Earth Day</u> by Shauna and John Stitch • <u>Eco Girl</u> by Ken Wilson-Max • <u>Farmer Will Allen and the Growing Table</u> by Jaqueline Briggs Martin • <u>Greta and the Giants</u> by Zoe Tucker

	<ul style="list-style-type: none"> • Our House is on Fire by Jeanette Winter • If Bees Disappeared by Lily Williams • The Fate of Fausto by Oliver Jeffers • We Are Water Protectors by Carole Lindstrom • Zonia's Rainforest by Juana Martinez-Neal
Climate Literacy Terms	Varied depending on student topic
Objectives	Students will build on their understanding of the climate crisis through reading and analyzing various illustrated texts, experiencing the ideas through a framework that includes human attitudes, practices, and motivations around the issue. Students will engage in creating their own text and sharing it with a real-world audience.
Materials and Resources	<ul style="list-style-type: none"> • Slides deck of entire unit • Fate of Fausto Slides (w/ analyzing practice) • Children's Book Assignment Planning Guide (for students) • Children's Book Analysis Form

Reflection

While I found this unit successful, I am already planning several changes for next year: adding more picturebooks, more robust summarizing activities, a requirement for a “summarize the issue” page in the finished books, and more time spent on writing and editing. I was happy with the shifts I made in teaching about the background of the climate crisis. Students’ questions and reflections were thoughtful and more nuanced than in previous years. Most important, however, students shared that the reading experience was meaningful to them— words I think most teachers are desperate to hear, especially now.

References

Oziewicz, M. (2023). What is climate literacy? *Climate Literacy in Education*, 1(1), 34-38.