LITERACY MASH-UP

DISCIPLINE-SPECIFIC PRACTICES EMPOWER CONTENT-AREA TEACHERS

By Hannah Dostal and Rachael Gabriel

In our work with middle and high schools, we often find teachers and leaders grappling with the same set of essential questions on how to incorporate literacy instruction across content areas:

1. What does literacy instruction look like for someone who isn't a literacy teacher?
2. Does literacy in content areas mean literacy, content literacy, or both?
3. What counts as content literacy in my area?

Recent efforts to integrate literacy standards across content areas from the Common Core State Standards have fueled these questions, yet questions about how to support literacy and use literacy to support learning in content areas are not new.

Existing research and practice about reading in the content areas falls along a wide-ranging spectrum (Wenz & Gabriel, 2014). Efforts to infuse, embed, or support literacy in content areas have often alienated secondary content teachers who identify conceptual and practical barriers (Bean, 1997; Lesley, 2004; O'Brien, Stewart, & Moje, 1995).

In this article, we describe a process for building teachers' capacity to identify, develop, and engage in discipline-specific literacy instruction that supports both content and literacy aims. This process uses an alternative set of questions:

1. What counts as text?
2. What are the specific purposes for reading and writing in this discipline?

EXAMPLES OF GENERIC AND CONTENT-SPECIFIC STRATEGIES

GENERIC READING STRATEGIES (Duke & Pearson, 2002)	CONTENT-SPECIFIC READING STRATEGIES
• Predict • Connect • Infer • Clarify • Question • Summarize • Evaluate	• Scan for dates and places • Categorize information • Evaluate statistics • Visualize functions • Prioritize information • Identify the structure of arguments • Infer the source or author's purpose

3. How are these purposes accomplished step-by-step?

These questions can frame inquiry and guide discussions that support a discipline-specific approach to literacy in content areas that resonates with both content and literacy goals.

DISCIPLINE-SPECIFIC PRACTICES

Disciplinary literacy (Moje, 2008) instruction is a way to conceptualize the purpose of literacy instruction in content-area courses that foregrounds the discipline itself. Literacy is used in and for discipline-specific purposes, thus students develop discipline-specific literacy practices that support content and literacy learning.

For example, rather than ending science class early to engage in 10 minutes of vocabulary work or independent

reading, students receive explicit instruction about the strategies needed to work with texts that come along with the content focus for the day. This might mean a five-minute minilesson about how to approach a set of lab instructions as a reader, formulate a written observation within a lab notebook, or interpret or generate labels for charts or figures used to represent scientific ideas.

Though science-specific, learning about literate practices in science builds students' awareness of text and engagement with a range of text types and purposes for reading while providing exposure to the words and formats most closely associated with this content.

An example from social studies might include embedding a short minilesson on how to read a current events article to determine possible sources of bias. Rather than focusing on reading strategies that apply generally (making predictions, connections, etc.), social studies teachers might identify and demonstrate specific things they do when reading to identify a source. This approach builds a library of content-specific strategies that make students more strategic, flexible readers across settings.

Mathematics is often a place of challenge for incorporating literacy strategies because texts take such different forms when compared to the longer texts found in English language arts and social studies, and even when compared with the word-heavy texts of science. Math consistently includes symbols and numerals in the expression of mathematical ideas, requiring students to read more than just words and go back and forth between modes of representation to comprehend and communicate mathematical ideas.

Disciplinary literacy instruction represents the full integration of literate practices in the doing of each discipline. Rather than *adding on* literacy or *taking away* content in order to address literacy, teachers engage with the literacies already associated with discipline-specific practices or the "doing" of the discipline.

This means there is often overlap and that generic reading strategies (like making inferences) are often called up when working toward a discipline-specific goal. Yet it allows teachers to concentrate on what they are most prepared for and passionate about: their content. This means content-area teachers work from a place of expertise and use this expertise to guide the focus, content, and amount of reading and writing in each lesson.

BUILD AWARENESS

To support faculty as they move toward a disciplinary literacy approach as content experts, it is necessary to build awareness of often-tacit knowledge content-area teachers hold (or can develop) about reading and writing in their content areas.

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We begin by reframing what counts as a text that can be used for literacy instruction to draw teachers' attention to the texts that naturally exist in their discipline as tools for learning and action. This allows teachers to focus their efforts on integrating literacy support on texts that matter for their content and already exist in their curriculum.

The next layer of knowledge building involves identifying how these texts can or should be read. Students often read the same type of text in different content areas, but they read them for different purposes and thus need appropriate strategies and approaches for understanding in each.

For example, students might read poetry in English language arts and social studies, current events in science and social studies, or charts and graphs in science and math. They may at times read the same text in more than one course. However, they are reading those texts for different reasons in each setting.

Scientists might be interested in an article about solar-powered cars because of the information about how solar panels work. Social studies teachers might have students read the same article to identify how technology related to natural resources is tied to geographic locations. English teachers might have students read this article to identify the structure of the argument, persuasive techniques, or bias in the reporting.

Generic reading strategies, such as making predictions, connections, and inferences, will undoubtedly help students make meaning of a current events article in all content areas. However, students may not understand the article the way they need to for a content-specific purpose unless teachers are explicit about how to read in a way that accomplishes this purpose. See the table on p. 29 for examples of generic and content-specific strategies.

What follows are examples of activities designed to address these questions in short sessions that can be completed in a 60- to 90-minute gathering or remotely with an online or in-person follow-up discussion. Exploring these questions with colleagues helps teachers tap into their existing funds of knowledge for literacy instruction in their content areas while also expanding it by building on each other's expertise.

1 WHAT COUNTS AS TEXT IN MY DISCIPLINE?

To address this question, we begin by asking teachers of similar content areas to work together to brainstorm the kinds of texts students routinely see in their classrooms as they go about the work of that particular content area. In doing so, we use a broad definition of text as *the symbolic representation of ideas* in order to release teachers from print-centric notions of what counts as texts and reading.

Within our broader definition, everything from faces, measurement tools, skies, clocks, numerals, and colors count as "texts" that can be "read" and interpreted. In this way, a math problem without words, an image without a label, and a graduated cylinder without full sentences can all be viewed as texts

students need to be able to read, reproduce, and make sense of.

Being literate in each content area means understanding the conventions and modes of representation used to convey ideas about that content. Teachers that begin the activity only thinking about textbooks or class notes as sources of text can often expand their list of texts to lists of 20 or more when they embrace this broader concept of what counts as literacy in their settings.

This broader definition of text leaves room for a flood of content-specific texts that help content teachers identify exactly what kinds of literacy or literacies they might be teaching if they take on the challenge of disciplinary literacy instruction. However, made-for-school texts do not always reflect or fully encompass the texts experts actually use in professional settings.

Sometimes real-world texts can offer more challenging but also more authentic and purposeful examples to teach and learn from. So we often extend this brainstorm by encouraging content-area teachers to draw on their own experiences, imaginations, and colleagues in related fields to generate a day in the life of a professional in a career related to this field of study.

We ask them to consider what texts a professional would use for daily routine tasks as well as more formal communication within and about their work. This list sometimes closely mirrors the original brainstorm with a few exceptions, but when teachers consider the range of professions associated with their content, the list is often flooded with additional text types and purposes.

The purpose of starting with a brainstorm of text types associated with each discipline is to orient content teachers to the literacy practices that are inherent in their work. This limits the idea that teachers should stop teaching content in order to teach literacy by pointing out how much room for literacy practice already exists in content courses.

These lists can also be used to foster dialogue between content areas about places of overlap and possibilities for inter- or transdiciplinary efforts. At the same time, it highlights the need for content teachers to take ownership of their unique text types as it becomes clear that we cannot assume reading or English classes could ever adequately prepare students for the range of texts they encounter as they move through their school day.

After identifying the long list, we encourage groups to explore overlap and contrasts and prioritize the texts they believe are most important and worthy of instruction. This provides a starting point for considering the next question as they move toward understanding how they might provide instruction for reading or writing the texts they have identified.

2 WHAT ARE THE SPECIFIC PURPOSES FOR READING AND WRITING IN THIS DISCIPLINE?

To design discipline-specific literacy instruction, teachers have to be able to articulate the purpose or goal for reading or writing each text they prioritize for instruction. This is especially important for texts that might appear across disciplines and settings.

As noted above, students may know how to read a current events article for plot (what happened), but reading for argument, scientific merit, or statistical reasoning requires some direction. For each of the texts teachers prioritize, we invite them to describe a purpose for reading and share this with a teacher from a different content area. It is important that the purpose is specific, so prompts such as "What can this text be used to do?," "What is this text an example of?," or "What would this text be used for in class?" often help focus teacher responses.

Sharing purposes for reading across content areas often allows teachers to sharpen their understanding of what makes their content area unique by noting contrasts with other areas. However, this level of specificity can be a challenge, especially for content experts who interact with the same texts repeatedly and do so automatically.

With this in mind, we offer a brief cross-content reading activity as a warm-up or follow-up to the generation of content-specific purposes. In this activity, we select a news story of 1,000 words or less from a major newspaper that appeared in the last seven days. We try to find a story on a topic of recent relevance that is short enough to read in the context of a short meeting, but we do not try to manufacture a story that has specific content or content references embedded. Instead, we ask teachers to surface content-specific areas of interest where they may not be so obvious to others.

After handing out the same article to teachers across content areas, we ask them to do two things:

1. Read the article in order to identify how you could use it if you had to use it in one of your classes this year. What could be relevant to your content area and why?
2. Keep track of your process as a reader and be ready to share. What are you paying attention to, what do you skip or skim, where does your eye go first on the page, and when do you decide you are done reading?

When teachers have had some time to read the article, we ask them to share how they could use it to surface the varied purposes for the same text. We invite teachers to make connections between the purposes they identify and the very nature and focus of the content area they represent.

This does not create a static list of what scientists or historians always look for in a news article. It does, however, demonstrate that readers can read the same article for a wide range of reasons. Keeping track of the reading processes associated with these reasons further demonstrates how readers need specific strategies to accomplish their varied purposes for reading.

Though we teach students to read fiction stories by starting at the top of the page and reading left to right all the way to the bottom, this is rarely how adults approach content-specific

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texts. They navigate text features, start at the end, skim the middle, read the introduction last, etc., based on their specific purpose for reading and their knowledge of how texts are organized.

It is this knowledge about purpose, text structure, and conventions of communication that students need to learn in order to read a range of text types for a range of purposes. Teachers may not be fully aware that their personal approach to the article is at all specialized or unique to their particular purpose. This activity invites them to reflect on their own process and displays a range of alternatives to highlight the range of possibilities and need for specific instruction when using a given text for a content-specific purpose.

3 HOW ARE PURPOSES FOR READING AND WRITING ACCOMPLISHED STEP-BY-STEP?

We use the shared current events article reading to generate examples of different purposes and processes for reading. The next step for content teachers is to consider the purposes and processes associated with texts they are currently using in class and increase their awareness of how they, as expert readers, accomplish these purposes.

If teachers can break down their expert reading and writing processes so that they can be modeled and explained, they have the raw materials for a minilesson or overview of a content-specific literacy strategy that supports students' use of content texts as well as their literacy development.

> **Comparing novice vs. expert reading processes on a given text often highlights what each teacher is doing to make sense of the text they use in class.**

To address this question, we engage in an activity called 60 Seconds of Reading. For this activity, we invite teachers to bring a sample text that they use in class to share with a teacher from a different content area. The activity has four steps:

1. Read your own sample text while considering your natural or routine reading process for this text. (Prompts: What do you pay attention to? What seems most important? What do you think this text is for?)
2. Share your content text with an out-of-area colleague without any introduction or explanation.
3. Invite the colleague to read it for 60 seconds while paying attention to his or her process as a reader. (Prompts: What do you pay attention to? What seems most important? What do you think this text is for?)
4. After 60 seconds, invite your colleague to share his or her thoughts on the text and compare them to those you generated as a content expert. Consider the differences and similarities between your approach, as a content expert, and an outsider's approach to the same text.

For the purpose of this assignment, out-of-area colleagues are similar to students in that they bring some literacy knowledge to the task but are not often aware of the content-specific purposes, processes, or assumptions that guide your reading of the task.

Comparing novice vs. expert reading processes on a given text often highlights what each teacher is doing to make sense of the text they use in class. This not only shines light on the existence of a specific process for reading, but also demonstrates how and why students may need explicit instruction to engage in this process on their own.

Increasing teachers' awareness of their processes for meaning making as readers and connecting these processes to the text types and purposes for reading that accompany their discipline generate the content of disciplinary literacy instruction. This content — the habits, strategies, processes, and approaches that are unique to each text or purpose — may be highlighted within and between existing content lessons as interactions with text arise.

Addressing these three questions can empower content-area teachers to incorporate literacy in ways that resonate with the content they already teach while addressing the need for explicit instruction in reading and writing a wide range of text types for a wide range of purposes.

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