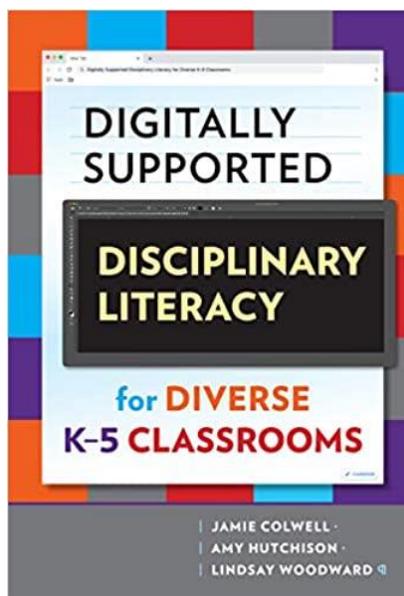# JoLLE@UGA®
JOURNAL OF LANGUAGE & LITERACY EDUCATION

Review of *Digitally supported disciplinary literacy for diverse K-5 classrooms*

By Jamie Colwell, Amy Hutchison, and Lindsay Woodward

Reviewers: Chyllis E. Scott and Matt Albert
University of Nevada, Las Vegas, NV

Colwell, J., Hutchison, A., & Woodward, L. (2021). *Digitally supported disciplinary literacy for diverse K-5 classrooms.* Teachers College Press.

Digitally Supported Disciplinary Literacy for Diverse K-5 Classrooms by Jamie Colwell, Amy Hutchison, and Lindsay Woodward offers an introduction and practical application of disciplinary literacy for elementary instruction through evidenced-based research and practical application and instruction for elementary teachers for disciplinary literacy and digital instruction.

Coleman, Hutchison, and Woodward are professors and educational researchers who offer a vast knowledge of preservice and inservice teacher education, literacy instruction and research, and the role and support for integrating digital technologies. Through this text, the authors provide rich, yet practical resources for K-5 teachers and teacher educators to broaden their knowledge and expertise to incorporate digitally supported disciplinary literacy instruction. In the eleven chapters, the authors "address three key areas: elementary reading acquisition, disciplinary vocabulary and comprehension, and the application of digital literacy tools for creative student engagement" (Bean, 2021, as cited in Colwell et al., 2021, p. ix).

As we review this book, it is important to know that we, as the reviewers, are teacher educators. For the Fall 2021 semester, this text was the required text for a graduate-level content area literacy course. We also share insight and feedback from current K-12 teachers (i.e., students on our class roster) that read this book as part of our course and how it helped them in their understanding and planning of disciplinary literacy instruction not only in elementary grades but for K-12. (Note: the course discussed in this review had Institutional Review Board permission and insight and feedback included in this review was approved for use by our students.)

A Highly Recommended Read for K-5 Teachers and Teachers of all Grade Levels

The authors begin with a much-needed introduction and description of disciplinary literacy (DL). The argument is made that DL is not just for secondary grade-level instruction and content specific classes. Next, Colwell et al. (2021) provide evidenced-based and research-based support and tools, as well as goals for teaching DL in K-5 classrooms and how digital tools support this instruction. This text provides a broadened and deeper understanding of DL. The authors share specific instructional examples for elementary teachers, and they also make connections to the fundamentals of how Common Core creates reading goals. Included in this broadened understanding are recommendations on how to sequence DL lessons into full unit plans and design valid, engaging assessments for students.

The second chapter, possibly the most important chapter in the book, details the planning steps and introduces the reader to the Planning Elementary Digitally Support Disciplinary Literacy (PEDDL) Framework. This framework "is designed to support elementary teachers in integrating disciplinary literacy Core Disciplinary Practices into their instruction," (p. 21) and essential questions are used to "frame a lesson and guide learning and discovery about content; they are typically unanswerable with a single response" (p. 25). The following anecdote is one example from a student in our graduate-level course on how they as a kindergarten teacher reflected on Chapter 2:

> I began to examine the lesson I had taught this past week—the parts of the apple. This lesson was the student's first introduction to informational texts. I used an abundance of 'what' questions during my lesson (what does an informational text tell us? etc.). I should also focus on the 'why' and 'how' questions. For example, I could ask, 'Why are we using informational texts when we are learning about apples? Why don't we use a fictional text when learning true information

about apples? How do we know this is an informational text?' While I don't think I'll forgo the 'what' questions, I think adding more thought-provoking essential questions would be beneficial when promoting disciplinary literacy skills.

The PEDDL Framework includes six phases; one—identifying appropriate disciplinary literacy practices; two—framing disciplinary literacy; three— selecting multimodal texts for disciplinary literacy; four—assessing disciplinary literacy with a variety of tools; five—digitally supporting digital literacy instruction; and six—reflecting to reach all learners. While the essential questions "are questions that frame a lesson and guide learning and discovery about content", they. . . "often prompt further questions" and . . . "stand in contrast to closed questions" (p. 25). Examples may include: "Why is the point of view important?" "How are estimates important in everyday life?" "Why is it important to understand cause-and-effect relationships?" (p. 26). Essential questions are not yes-or-no questions, they are extensions that help students to foster ideas, promote critical thinking, and can take support via multiple texts. When making connections to the PEDDL and essential questions, one secondary ELA teacher in our course shared, "I found a lot of great ELA resources that could either apply directly to secondary classrooms or be adjusted to fit. I enjoyed reviewing the PEDDL Framework and sample lessons. I found it helpful to see the different types of questions to ask for each phase."

The specific content chapters (Chapters 3 through 10) follow a systematic approach with pairs of chapters dedicated to each core subject area (i.e., English language arts [ELA], mathematics, Science, and Social Studies). The first chapter in the pair *examines the DL* in the elementary setting for each of the four disciplines that includes expert digital tool connections (e.g., digital databases, editing software, social media sites, digital devices, etc.) and Common Core Content Standards (CCSS) aligned with the specific content areas and disciplinary literacy practices. The second chapter in the pair provides *practical approaches to digitally supported DL* in each of the four disciplines. These paired chapters provide support for planning instruction in alignment with CCSS and conclude with questions to ponder, similar to frequently asked questions—here the authors pose additional resources to questions teachers may ask or come across when planning and teaching.

Chapters 3 and 4 present useful ELA resources to reflect on and implement. Although much of the ELA curriculum in elementary classes focus on traditional literacy, ELA is also associated with higher level abilities, such as reading, writing, and comprehension, which is also DL. Introducing these DL concepts at younger grades provides initial encounters with sophisticated concepts, which subsequently results in more familiarity with these skills by the time students reach middle school and eventually high school. Doing so also provides increased preparation for students to meet the increased rigor of the CCSS in grades 6-12.

Chapters 5 and 6 make important and necessary connections between literacy and mathematics. Each discipline seeks to foster and develop experts within the discipline. For mathematics, students need to be able to construct knowledge, which is done through an expert lens by engaging with mathematical text (i.e., "reading, writing, analyzing", p. 65). The authors provide examples of digital tools specific for mathematics, such as graphic organizers, digital measures, interactive whiteboard, opportunities to work with numbers and data, digital tables, etc.

Like the previous chapters and disciplines, in Chapters 7 and 8 the authors focus on disciplinary

literacy in elementary science. Not only should students be able to read about science, but more importantly they need to be able to *do* science. This goal is accomplished by engaging with science activities, thinking like a scientist and conducting research, and doing experiments and/or investigations. Digital tools for science instruction may include but are not limited to viewing digital simulations, using apps and digital cameras, engaging in exploration, identifying objects and/or materials, etc. It is also important to note that CCSS are part of science (and social studies) instruction as well via the use of the Next Generation Science Standards.

In Chapters 9 and 10, the authors examine disciplinary literacy in elementary social studies. Social studies is complex and encompasses several subdisciplines (i.e., civics, economics, geography, and history). Therefore, Colwell et al. provide opportunities to have students engage with texts from several different relevant perspectives such as the lawyer, the economist, the geographer, and the historian. Regardless of perspective, DL instruction in social studies helps students develop questions for inquiry, apply disciplinary tools of the selected perspective, evaluate sources and evidence, and communicate conclusions with the aim of taking action.

The concluding chapter, Chapter 11 provides closing thoughts and additional tips for long-range planning. While not approached from a specific disciplinary angle, the chapter does offer helpful advice for the long-term aspect of academic planning. The authors recognize throughout the text that planning is time-intensive and can seem extremely intimidating if trying to rush through it. Colwell et al. use this chapter as one final reminder that the best planning for teaching elementary DL requires careful, deliberate decision-making to create instructional opportunities appropriate for all

students and set up all learners for long-term success.

Reflection and Conclusion

There are several main takeaways from this text. First, as reiterated by current classroom teachers, are the PEDDL Framework and essential questions. Though some of these practices are used in planning and instruction, the authors help the reader to deepen their understanding with connection to DL and the application of digital literacy tools. While developing an understanding for DL and digital technologies, a teacher from our graduate course noted,

> There are certain practices mentioned in the [text] that I currently practice, but it was helpful to read why we should use these strategies. For example, exposing students to a wide variety of multimodal texts on the same topic is important because it is essential for students to learn how to read, write, and communicate with digital texts in order to be fully literate.

An additional strength of the text was the examples and connections to the CCSS. Many teachers are unfamiliar with DL and are also unaware that DL standards are written in the CCSS. Another teacher from our course shared, "[One] takeaway was to find that an unwrapped standard with the academic vocabulary and essential questions was a way of disciplinary literature." Other helpful resources are the detailed tables in each of the chapters. The tables provided examples, resources, and easy to digest layouts of suggestions for lesson planning.

A final benefit we recognize from reading this text applies to vertical alignment within departments. Secondary teachers will find it valuable to see how DL is being incorporated in elementary grades and how earlier DL instruction can help ease the transition for students from fifth grade to sixth

grade (i.e., elementary school to middle school). When teachers have a better understanding of how their lessons fit not just into a unit but into the larger scope of K-12 education, it is easier to explain to students how new knowledge is simultaneously building off of previous concepts and preparing students for new concept.