



Disciplinary Literacy and Speech-Language Pathology Practice

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Background

According to a study conducted through the National Assessment of Education Progress (NAEP)[2], educational outcomes in the U.S. appear to be declining as compared to other countries. Greater attention is needed to support the reading development of dual language learners (DLLs).

Reading comprehension is related to the purpose and conditions of the activity, the topic and difficulty of the text, and the attitude and skills of the reader [3]. At the secondary level, students may experience difficulty learning the content in academic areas as a result of low reading proficiency [4]. Teaching students comprehension strategies does not sufficiently enhance reading comprehension. Disciplinary literacy is a critical component of successful reading comprehension that involves teaching language and literacy for a specific subject [5].

Speech-language pathologists play a role in supporting the success of children with oral and written language difficulties. Despite this important support role, a survey indicated that many speech-language pathologists were not familiar with disciplinary literacy and rated themselves poorly on having training [5], leaving clinicians unsure of how to develop evidence-based treatment plans to meet the needs of the student.

The goal of this research is to present a clinical scenario of a recently graduated bilingual SLP developing a treatment plan for an adolescent bilingual student by connecting disciplinary literacy, best practices for treating language, and bilingualism.

Clinical Scenario

Sandra is a recently graduated bilingual SLP working in an upper elementary school setting. Her client, Carlos, is a 13-year-old student with developmental language disorder (DLD). His mother expressed concerns with his language and comprehending what others say to him. Carlos's teacher expressed concerns with his reading comprehension, writing, and receptive/expressive language. Sandra is tasked with developing an evidence-based treatment plan for Carlos that integrates literacy and language simultaneously. As a result, she decides to review current research to learn more about disciplinary literacy, an instructional approach she learned in graduate school.

Clinical Questions

Sandra is aware that SLPs have a role and responsibility to work with those who have needs in language and literacy. She and her collaborators seek current, evidence-based recommendations for developing his intervention plan. Specifically, she conducts a literature review to learn of practices supported by research for bilingual adolescents. To inform her research, she focuses on answering the following these clinical questions:

1. What strategies are used in disciplinary literacy to support reading comprehension?
2. What evidence-based practices are used to develop language with adolescent dual language learners?

Literature Review

Sandra's goal was to create a treatment plan for Carlos that addressed language and reading concerns reported by his mother and teacher. To prepare she reviewed common patterns of language and literacy in bilingual adolescent students with a language disorder. After reviewing the literature, she found that students in the upper grades are performing below in reading compared to other countries [1], which indicated a need to improve reading instruction. During her search, she also found that many speech-language pathologists felt unfamiliar with disciplinary literacy and believed they did not receive adequate training [5]. Aligning disciplinary practices with the Common Core State Standards (CCSS) compounds the challenges some school SLPs are facing in developing their therapy. The CCSS does not state how to accommodate students with disabilities or dual language learners. Other special considerations Sandra took was for dual language learners. One instructional approach she selected that would benefit Carlos and similar students was explicit instruction of morphological awareness. She learned she could make suggestions for instruction and assessment to classroom teachers [4]. From this search, she discovered the importance of professional collaboration in order to prevent the simplification of strategies needed for complex literacy.

In her search for instructional practices can follow to implement disciplinary literacy she found that explicit, metacognitive and metalinguistic approaches would promote listening, speaking, reading, and writing in various subject areas such as history, science, reading, and math. Other general strategies could also be used such as summarizing, asking reflective questions, drawing inferences, and promoting critical thinking. Considerations for dual-language service delivery include vocabulary-based instruction, inclusive of graphic organizers, and use of videos.

Sample Lesson Plan for Disciplinary Literacy

Science Unit

Materials:

- a. Article, "The periodic table: A classic design"
- b. Graphic organizer

Day 1: Systematic Morphological Instruction

1. Introduce Purpose: Examine parts of a word closely
2. Explicit instruction: Select 1-2 words and students share their strategies on how they determined the definition (e.g., nucleus)
3. Review: Review the definition of the word
4. Explain syllabication and morphological problem (i.e., prefix, root, base, and suffix) solving as strategies
5. Closing: Review advantages of using morphology and how it can build their vocabulary, reading, and writing

How to Select Vocabulary Terms to Target

6. Which words to target?

- a. Focus on academic, Tier 2 words
- ##### 7. How to introduce the words?
- a. Choose words that are of interest, students will come across in their reading, as well as cognates
- ##### 8. How often?
- a. Words can be targeted several times and reinforced throughout various tasks students are assigned
- ##### 9. What aspects of word knowledge to focus on?
- a. Teach the various meanings, relationships, and word structure

Assessment and Intervention

Sandra evaluated Carlos' skills with various assessments including a writing sample to determine his language proficiency and self-image as a bilingual writer. Students can be identified and fall under various levels such as a struggling, emerging, dominant, or balanced writer. Carlos was identified as an emerging writer who needed to develop his abilities in both languages. An informal interview was then conducted, followed by the administration of the TILLS assessment. Based on all her findings, she developed a treatment plan that incorporated disciplinary literacy, aligned with the Common Core State Standards, infused cultural responsibility, instructional strategy techniques to support bilingual development, with interprofessional collaboration with his teachers including the science teacher. Together they worked with one another to understand the curriculum and select key intervention targets.

The intervention targets included carefully selected Tier 2 words that would be useful across various content areas and enhanced morphological and cognate awareness. Both Spanish and English were utilized for instruction to enhance comprehension. Following explicit instruction, Sandra and the teacher provided multiple opportunities for continued practice several times each day and throughout various assigned tasks. The collaborative effort supported Carlos' ability to navigate technical and academic texts.

Discussion

SLPs can play a significant role as they are trained to treat language deficits that contribute to academic difficulties. As a bilingual SLP, Sandra learned she will be tasked to support the child in both languages by advocating for students and educating others about the benefits of treating the native language.

Her role also consisted of problem solving and developing a school wide plan to implement disciplinary literacy that would incorporate the CCSS. Although there is limited evidence and research to support disciplinary literacy, Sandra concluded literacy-based interventions can still be implemented in classrooms specific to a discipline. Sandra ascertained disciplinary literacy allows dual language learners and those with language difficulties to learn various strategies to engage with texts in various test subjects by assisting them navigate the language and build vocabulary.

Future Directions

Educators including SLPs need more training in effective collaboration practices. Organizations such as ASHA and the Interprofessional Education Collaborative (IPEC) have been defining and mapping interprofessional skills. IPEC was created to promote and encourage great efforts to advance interprofessional learning among health care professionals in order to improve patient outcomes. They have made great efforts to enhance curriculum to continue further developing interprofessional practices [11,12]. Given the reports of teachers, SLPs, and various works of research, room remains for significant strides in training professionals' abilities in collaborative practice. SLPs are tasked to find opportunities for collaboration on their own, which can be difficult given their limited time during the school day. They are in need of additional support to implement this best practice.

References

- [1] Zygouris-Coe, V. I. (2012). Disciplinary literacy and the common core state standards. *Topics in Language Disorders*, 32(1), 35–50. doi: 10.1097/TLD.0b013e31824561a2
- [2] Kieffer, M. J., & Thompson, K. D. (2018). Hidden progress of multilingual students on NAEP. *Educational Researcher*, 47(6), 391–398.
- [3] Ukrainetz, T. A. (2017). Commentary on "Reading comprehension is not a single ability": Implications for child language intervention. *Language, Speech, and Hearing Services in Schools*, 48(2), 92–97. https://doi.org/10.1044/2017_LSHSS-16-0031
- [4] Elleman, A. M., & Compton, D. L. (2017). Beyond comprehension strategy instruction: What's next? *Language, Speech, and Hearing Services in Schools*, 48(2), 84–91. https://doi.org/10.1044/2017_LSHSS-16-0036
- [5] Davis, K. C., & Murza, K. A. (2019). Disciplinary literacy: Virginia school-based speech-language pathologists' knowledge and confidence. *Communication Disorders Quarterly*, 40(2), 77–87. <https://doi.org/10.1177/1525740116771905>
- [6] Apel, K., Diehm, E., & Apel, L. (2013). Using multiple measures of morphological awareness to assess its relation to reading. *Topics in Language Disorders*, 33, 42–56. doi:10.1097/TLD.0b013e318280f57b
- [7] Grasso, S. M., Peña, E. D., Bedore, L. M., Hixon, J. G., & Griffin, Z. M. (2018). Cross-linguistic cognate production in Spanish-English bilingual children with and without specific language impairment. *Journal of Speech, Language, and Hearing Research*, 61(3), 619–633. https://doi.org/10.1044/2017_JSLHR-L-16-0421
- [8] Zoski, J. L., Nellenbach, K. M., & Erickson, K. A. (2018). Using morphological strategies to help adolescents decode, spell, and comprehend big words in science. *Communication Disorders Quarterly*, 40(1), 57–64. <https://doi.org/10.1177/1525740117752636>
- [9] Danzak R. L. (2011). The interface of language proficiency and identity: a profile analysis of bilingual adolescents and their writing. *Language, Speech, and Hearing Services in Schools*, 42(4), 506–519. [https://doi.org/10.1044/0161-1461\(2011/10-0015\)](https://doi.org/10.1044/0161-1461(2011/10-0015))
- [10] Ehren, B., Murza, K.A., & Malani, M. (2012). Disciplinary literacy from a speech-language pathologist's perspective. *Topics in Language Disorders*, 32(1), 85–98.
- [11] American Speech-Language-Hearing Association (ASHA). (n.d.). *Interprofessional Education/ Interprofessional Practice (IPE/IPP)*. <https://www.asha.org/Practice/Interprofessional-Education-Practice/>
- [12] Interprofessional Education Collaborative (IPEC). (n.d.). *IPEC Core Competencies*. <https://www.ipecollaborative.org/core-competencies>