

Identifying Opportunities for Content Knowledge Development in Multicultural Children's Books for Children in Elementary Schools

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Abstract

Content knowledge is critical for comprehending informational texts. This exploratory study aims to show that multicultural children's books do not just provide enjoyment of characters' cultural experiences, but also offer opportunities for developing elementary school children's content knowledge. For example, the book, Crown: An Ode to The Fresh Cut [1] describes a Black boy's experience of getting a haircut in a barbershop. This book presents readers with an opportunity to go beyond this book and learn about the barbershop culture in a Black community. This type of learning helps children gain knowledge in history and geography as well as learn more about this Black boy's experience. To assess this phenomenon, a content analysis of 40 books (8 books per grade level; 1st-5th grades) was conducted. For each book, the researcher identified as many opportunities for content knowledge development as possible. The findings from this study indicated that 1) each book had at least two opportunities for children to learn about content knowledge beyond what the book explicitly covered; 2) opportunities for content knowledge development in most books focused mainly on history and social studies, with various other subjects (e.g., science, math) being represented to a lesser extent; and 3) some content knowledge relevant to books can be challenging for children to grasp, as content knowledge is not always developmentally appropriate.

Keywords: *Multicultural children's books, content knowledge, reading instruction, elementary school children*

1. Introduction

Effective comprehension of an informational text requires a reader to have adequate background knowledge on the content of the text, yet not all readers have such knowledge. Knowledge gap tends to be most evident in struggling readers, children of color, immigrant children, and children living in poverty. This lack of content knowledge affects children's comprehension of texts in various subjects [2], limiting their access to opportunities for developing deep content knowledge through high-level academic texts. Scholars have urged teachers to address the knowledge gap and stimulate children's intellectual development on various subjects [3, 4]. Multicultural children's books can serve the above purpose. Within the context of this study, multicultural children's books are books that portray experiences of diverse groups of people, including people of color, those living in poverty, people with a disability, immigrants, and people who are resilient in fighting for social justice.

Multicultural children's books can help children better understand and appreciate others whose cultures, perspectives, and experiences are different from theirs [3, 4, 5]. Additionally, multicultural children's books, like subject-focused books (e.g., books about nature), offer children opportunities to extend their learning beyond books and to gain some content knowledge relating to books that they are reading.

2. Methodology

In this exploratory study, the researcher identified 40 books (written in English) among those used in 1st-5th grade classrooms (8 books per grade level). A content analysis [6] of the books consisted of the following six activities: 1) reading and re-reading each book, 2) identifying opportunities for content knowledge development, 3) categorizing opportunities based on subjects (e.g., history, science), 4) comparing identified opportunities across all books (e.g., some books present more opportunities than others), 5) evaluating how age and grade appropriate each opportunity was (e.g., some opportunities are too advanced for a particular grade level), and 6) identifying insights and findings from activities 2-5.

3. Findings

Table 1 shows sample books (one per grade level) and the identified opportunities for content knowledge development per book. The sample represents general trends among 40 books in this study. The



opportunities map to both specific content knowledge (e.g., physical geography, civics) and content concepts (e.g., segregation, communism). Some books (e.g., *Hidden Figures*) present more opportunities than others (e.g., *Rescue & Jessica*). Most opportunities for content knowledge development relate to history and social studies (e.g., geography, civics), with other subjects (e.g., science, art) being represented to a lesser extent. Some opportunities may be less accessible to students as the content knowledge is too advanced for their age or grade level. For example, in *Martin's Big Words*, Martin's religious practices, which are central to his life and this book, can be a missed opportunity for some students to learn more about religion, as they might not yet be familiar with the concept of religion. Similarly, a teacher may not seize an opportunity to explore the concept of an emotional journey as expressed in *Grandfather's Journey* due to students' emotional maturity level.

Table 1 Sample Books and the Identified Opportunities for Content Knowledge Development

<p>Grandfather's Journey [7] (1st Grade) Summary: Say portrays his grandfather's and his own journeys between Japan and USA, and expresses their love for both countries.</p> <ol style="list-style-type: none"> 1. Physical Geography (Japan, The Pacific Ocean, mountains, deserts, North America, California, seacoast, the Sierra Mountains, San Francisco Bay) 2. Human Geography (steamship, riverboats, trains; farm fields, cities, villages; factories, buildings) 3. History (war) 4. Cultural Differences (European clothes; people with different skin colors) 5. Concepts (homeland, childhood, physical and emotional journey) 	<p>Martin's Big Words: The Life of Martin Luther King Jr. [8] (2nd Grade) Summary: A brief biography of Martin Luther King Jr. highlights (with some of his famous quotes) his contributions to the civil rights movement.</p> <ol style="list-style-type: none"> 1. Physical Geography (Montgomery, Alabama; Memphis, Tennessee; The South; India) 2. Religion (hymns, Bible, minister) 3. Historical Figures (Mahatma Gandhi, Rosa Parks) 4. Historical Events (Montgomery Bus Boycott) 5. Civics (police chiefs, mayors, judges, governors) 6. Global Awards (Nobel Peace Prize) 7. Concepts (non-violent protest; march, on strike; equal rights; White Southern; segregation)
<p>Rescue & Jessica: A Life-Changing Friendship [9] (3rd Grade) Summary: A wheelchair-bound girl (after losing both legs) gets help from a service dog which was trained as a seeing-eye dog.</p> <ol style="list-style-type: none"> 1. Disability Accommodations (seeing-eye dog, service dog; wheelchair) 2. Science (prosthetic leg) 	<p>Dia's Story Cloth: The Hmong People's Journey of Freedom [10] (4th Grade) Summary: The story cloth tells the life of the Hmong in their homeland and Dia's journey of emigration to USA.</p> <ol style="list-style-type: none"> 1. Physical Geography (Laos, China, Thailand, Southeast Asia; Rivers, jungles, tropical highlands, forests, Mekong River) 2. Human Geography (refugee camps, refugees; wood and bamboo house, huts) 3. Education (master's degree; anthropologist) 4. Art (story cloth) 5. Concepts (communism, emigrant)
<p>Hidden Figures: The True Story of Four Black Women and the Space Race [11] (5th Grade) Summary: Four African American mathematicians, despite experiencing segregation at NASA, make valuable contributions to the space program.</p> <ol style="list-style-type: none"> 1. Historical Events (World War II; Space Race, Sputnik) 2. Historical Figures (Dorothy Vaughan, Mary Jackson, Katherine Johnson, and Christine Darden; JFK; John Glenn) 3. Solar System (Moon, Mars, Jupiter, Saturn) 	



<p>4. Science (math, computer, numbers; test model plane in wind tunnels; trajectory calculations; supersonic airplanes; computer programming) 5. Physical Geography (The Atlantic Ocean, Russia) 6. Government (NASA, Congress) 7. Concepts (segregation)</p>	
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A closer examination of all identified opportunities reveals that not all opportunities are equal. Some content knowledge is closely related to the story plot, and opportunities for content knowledge development are easily identified while others are briefly mentioned, and opportunities are less obvious. For example, in *Dia's Story Cloth*, it is obvious that background knowledge about refugees, refugee camps, and communism would help instill a deeper understanding of this book. On the other hand, the concept of an anthropologist presents a hidden opportunity for content knowledge development. While the author being an anthropologist is not covered in the story, the lens she brings as one is an integral part of the storyline. Hence, having knowledge of what an anthropologist does may help drive a deeper understanding of the author's approach to writing this book and describing the events within.

4. Instructional Implications

Since multicultural children's books present multiple opportunities for content knowledge development, particularly in the areas of history and social studies, teachers can leverage such opportunities to further their students' knowledge in relevant content areas. First, teachers need to read each book closely and identify opportunities for content knowledge development. Then, teachers seize opportunities during any of the three stages of reading instruction--before, during, and after reading a book. For example, before reading the book, *Hidden Figures*, a teacher could ask students about what they know about the concept of the Space Race (e.g., NASA, Sputnik) and then ask them to predict how the book's main characters (four African American mathematicians) might contribute to American participation in the Space Race.

While reading the book, students can develop their content knowledge in two different forms. The "brief" form provides them with immediate contextual information for the book (e.g., explaining NASA's missions and programs). The "extended" form involves students in the process of reading and discussing the book. For example, the concept of "computers", the profession that the four mathematicians had at NASA, includes content knowledge on how a human computer works (e.g., mathematical calculations) and how their work contributes to NASA's space programs (e.g., trajectory calculations). Developing content knowledge on "computers" is accomplished by reading the book and other additional information as having a good understanding of "computers" is key to comprehending the book's central themes.

After reading the book, a teacher can guide students to further develop the book's embedded content knowledge. For example, students can learn more about the lives of Dorothy Vaughan, Mary Jackson, Katherine Johnson, and Christine Darden. Additionally, further content knowledge development can be integrated into other subject areas. For example, students could figure out how to calculate a trajectory as part of a math lesson. *Hidden Figures* also can motivate students to do some research about the roles that a "computer" played in NASA programs. Finally, content knowledge development can be a family project. For example, after reading *The Story Cloth*, students can interview their family members and write a story about their family's experiences (e.g., struggles, triumphs, celebrations).

5. Conclusion

The exploratory study has shown that multicultural children's books present multiple opportunities for content knowledge development mainly in history and social studies, and some in other subject areas (e.g., science). It is practical and feasible for teachers to use these opportunities to engage and guide students to learn beyond a book they are reading and further their content knowledge associated with the book's topics. Given that students have developed some content knowledge on a topic before and during reading the book, they would experience less challenge in broadening their content learning on the topic after reading the book. This is particularly helpful to English learners and students with reading difficulties. Furthermore, teacher guidance before and during reading helps provide a foundation for students' learning beyond books, helping them feel more motivated and confident to further explore the topic independently. Opportunities for content knowledge development highlight the many benefits of incorporating multicultural children's books in reading instruction. Students enjoy wonderful stories, learn from the experiences of those different from themselves, and grow their content knowledge in various subject areas.



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