Supporting Girls’ Mathematics Learning Using High-Interest Texts

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Gender Differences in Math
Dispositions  
Performance  
Participation

Sociocultural Influences on Gender Issues in Math
Peers  
Families  
School Staff  
Media  
Society in General

Potential Value of Context for Math Learning
Interest (engagement, motivation)  
Familiarity/relevance (use of background knowledge; appreciation of utilitarian value of math)  
Meaning (less abstract entry into problems; more meaningful assessment of answers)  
Greater transfer of learning

High-Interest Texts
Texts students want to read (willingness to engage with specific content)  
One type: high-interest/low readability (“hi-lo” books)  
Types of interest: individual; situational

High-Interest Texts for Girls: Format
Primary
Books (esp. novels, series, chapter books)  
Magazines  
Digital  
Websites (in general)  
Social media (networking sites)  
Communication (email, text messages, instant messages)

Secondary
Newspapers  
Song lyrics
High-Interest Texts for Girls: Genres
Fiction (narrative, historical, realistic)
Adventure
Humor
Factual/informational
Mystery

High-Interest Texts for Girls: Topics
Primary
Animals
Human interest
Pop culture (entertainment, current events…)
Secondary
Friendship
Science
Specific holidays
Romance

Selected Resources
• 12 Inspiring STEM Books for Girls: https://www.edutopia.org/article/12-inspiring-stem-books-girls-emelina-minero
• A Mighty Girl Book Club: https://www.amightygirl.com/books/book-club?cat=422
• New Moon Girls Magazine (ages 8-14): http://newmoon.com
• Online Resources for Selecting High-Interest Texts: https://www.literacyworldwide.org/blog/literacy-daily/2018/01/16/online-resources-for-selecting-high-interest-texts
<table>
<thead>
<tr>
<th>Tips for Selecting Texts for Mathematics</th>
<th>Ask yourself some questions:</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td>• What math can emerge from this text?</td>
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<tr>
<td><img src="image2.png" alt="Image" /></td>
<td>• Does the math fit with my math goal for the lesson?</td>
</tr>
<tr>
<td><img src="image3.png" alt="Image" /></td>
<td>• What background knowledge do the students have?</td>
</tr>
<tr>
<td><img src="image4.png" alt="Image" /></td>
<td>• How will their background knowledge relate to the text context?</td>
</tr>
<tr>
<td><img src="image5.png" alt="Image" /></td>
<td>• What tools do I need to provide for the students to find the mathematical potential from the text?</td>
</tr>
<tr>
<td><img src="image6.png" alt="Image" /></td>
<td>• For students to make sense of the text context and the mathematical concepts what must take place?</td>
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<th>Open Rubric:</th>
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<tbody>
<tr>
<td>• Is the text’s mathematics content correct and accurate?</td>
</tr>
<tr>
<td>• Is the text’s mathematics content visible and effectively presented?</td>
</tr>
<tr>
<td>• Is the text’s mathematics content intellectually and developmentally appropriate for its audience?</td>
</tr>
<tr>
<td>• Does the book facilitate the reader’s involvement in, and use and transfer of, its mathematics?</td>
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<tr>
<td>• Do the text’s mathematics and story complement each other?</td>
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<tr>
<td>• How great are the resources needed to help readers benefit from the text’s mathematics?</td>
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