Gender Stereotypes and Bias in Imagery Depiction of Textbooks prescribed by West Bengal Board of Primary Education, India

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Abstract

India is a diverse country. Ethnic, Linguistic, Racial, Gender, and Socio-Religious, etc. diversity is observed in India. Educational institutions play a vital role in socializing children and creating gender-friendly attitudes. Textbooks serve as a vehicle for social change. From childhood in school through textbooks and classroom experiences students embrace gender socialization, societal norms, and beliefs, gender roles, inequality, and bias. So, it is very important to make textbooks gender-neutral, to do this, textbook analysis is required. This study investigates the images used in textbooks of primary education in West Bengal, India, to examine gender stereotypes and bias. The study adopted qualitative and documentary research approaches through content analysis. The findings demonstrate that gender patriarchy and bias are reflected through visual imagery in textbooks. Images often lack representation of women and tend to portray them engaging in indoor tasks such as domestic and household work, or menial labor. Meanwhile, men are predominantly shown in outdoor, professional, and leadership roles, reinforcing gender disparities in identity and societal roles. There is a limited attempt to showcase gender neutrality, and there's minimal encouragement for gender reflection, hindering the development of sustainable perceptions of gender roles in Indian society. The findings of the study provide a foundation for policy changes at the state or national level to ensure the development and implementation of guidelines that promote gender-neutral content in educational materials and are useful for textbook development agencies, textbook writers, and teachers in developing a gender-sensitive curriculum, and textbooks.

INTRODUCTION

Textbooks are one of the most important, indispensable, cheap, and easily accessible educational materials, they provide a lot of certain knowledge that the students will follow to learn, and also, can affect students' thoughts (Zhou et al, 2021). Textbooks play a pivotal role in shaping both individual and societal behavior, as highlighted by Saleem and Zubair (2013). The content and messages conveyed in textbooks have the potential to exert either positive or negative influences on the cognitive, affective, and social development of children. This impact is achieved through the transmission of implicit or explicit images and written narratives within the educational materials (Sever, 2004). Textbooks are thought to wield significant influence over students' perceptions of gender concepts. They have the potential to shape learners' cultural heritage and contribute to the formation of their gender identity (Ullah, Ali & Naz, 2014). Additionally, textbooks hold the capacity to impact gender stereotypes and social power dynamics (Kobia, 2009). Textbooks exert a significant influence on shaping gender models for boys and girls, contributing to the reinforcement of gender stereotypes (Arslan Ozer, Karatas & Ergun, 2019). Recognizing primary schools as a crucial stage in education, they are considered strategically important for shaping learners' perspectives on humanity,
molding attitudes, imparting knowledge, and developing fundamental skills (Halimatussakdiah et al, 2021). The primary-level curriculum is instrumental in cultivating the mindset of young learners, influencing their behavior, and combating gender biases (Ali & Hussain, 2019). Textbooks, being integral to this process, contribute to instilling desirable attitudes in children (Sumalatha, 2004), making primary level textbooks a focus of research across societies. Gender representation in school textbooks has been a longstanding research topic, with scholars highlighting the prevalence of masculinity and femininity stereotypes in these educational materials. Over recent decades, discussions and studies on gender in education and textbooks have gained prominence, emphasizing the critical role of textbooks in promoting specific gender ideologies or values (Ariyanto, 2018). The relationship between gender and textbooks is reciprocal, as textbooks both reflect and construct gender norms within a culture (Aydnoglu, 2014). Consequently, the issue of gender in textbooks significantly influences students' learning experiences and attitudes (Ansary & Babaii, 2003). Thus, in this article, researchers want to present gender stereotypes and bias in imagery depiction in textbooks used for primary education by the school education department of West Bengal in India.

This research offers a unique perspective by focusing on the imagery used in textbooks, unraveling the subtle ways in which gender stereotypes may be perpetuated through visual content. By conducting a study in West Bengal, the research contextualizes its findings within the sociocultural nuances of the region, providing valuable insights into the intersectionality of gender and culture in educational material. Focused study also provides valuable insights that can inform educational policies and content development to foster more inclusive and equitable learning environments.

LITERATURE REVIEW

In the Indian context several related studies on gender bias and stereotypes and textbooks, many researchers pointed out that females are underrepresented and stereotyped (Kadri, 2022; Bhattacharyya, 2017; Kuruvilla & Thasniya, 2015). Nandi, Bhattacharyya & Das (2020) investigated gender bias in textbook pictures and concluded that major no of units of textbooks distribute numerically male and female pictures unequally and female characters are ignored. Ahmad and Shah (2019) noted an imbalance in the representation of genders in the mentioned textbook, with males depicted in dominant and influential roles, while females are portrayed in roles that are comparatively dependent and inferior. Kharbanda & Anwar (2015) reported female characters appear less often than male characters. Kharbanda and Lodhi’s (2015) findings suggested that there are many more Times of male references compared to females. Sumalatha and Ramakrishnaiah (2004) argued that only men were found on them most of the time.

In abroad from the context of gender bias and stereotypes and textbooks, some research findings state that: Dejene (2017) noted an unjust representation of genders in textbooks, while Cocorada (2018) identified prevalent depictions favoring men in both images and text within Romanian educational materials. Zhou et al. (2021) disclosed a pattern where textbooks featured more males than females, with males occupying more dominant, expressive, and active roles. Ansary and Babaii (2003) uncovered a considerable gender gap in the treatment of females and males, portraying women as nearly invisible with a prevalence of male generics. Nashriyah (2020) demonstrated the presence of gender bias in every textbook, with males consistently dominating, particularly in terms of visibility. Amini and Birjandi (2012) found an overrepresentation of male characters, both linguistically and visually, along with clear indications of masculine generic references.

Therefore, the focused study was conducted after reviewing several previous studies, by examining recent scholarly publications and the most up-to-date information, considering and checking recent academic journals but previous studies failed to address gender stereotypes and bias in imagery depiction in textbooks used for primary education by the school education department of West Bengal in India and limited exploration seen in Indian context on focused study. It is on this ground that this study critically examined all pictorial depictions of textbooks.
Objectives of the study
1. To study gender stereotypes and bias in images of games and leisure time activities in textbooks.
2. To explore gender stereotypes and bias in images of occupational and working roles in textbooks.
3. To investigate stereotypes and bias in images of role models in textbooks.

Research Questions
1. Are gender stereotypes and biases depicted through images of games and leisure time activities in textbooks?
2. Are gender stereotypes and biases depicted through images of occupational and working roles in textbooks?
3. Are gender stereotypes and biases depicted through images of role models in textbooks?

METHODS
The current study is qualitative and documentary in nature. Document review is a method of qualitative research (Yıldırım & Simsek, 2005). Documentary analysis is a systematic rigorous procedure for reviewing or evaluating textual and electronic documents (Bowen, 2009). Qualitative research is best when you want to explore a problem or topic in depth (Creswell, 2013). Document review was done by using content analysis techniques in this research. In this research, textbooks are considered as documents. Documents often convey information through a combination of text and visual elements such as pictures, diagrams, and emblems (Prior, 2003). Content analysis, as outlined by Cohen, Manion, and Morrison (2007), aims to unveil meaning, decode, translate, and describe phenomena within a social context. It is a research technique focused on making replicable and valid inferences from texts, and deciphering their contexts of use (Krippendorff, 2004). This method is commonly employed in social science to identify patterns within texts. Content analysis, according to Nachmias and Nachmias (1976), involves drawing inferences and conclusions based on the content of a message. This study specifically explores gender stereotypes and biases in primary school textbooks (from class I to class V) by employing content analysis to assess the portrayal of male and female images.

Samples
Out of the total of nineteen textbooks, five textbooks named i) “Amr Boi” for class I; ii) “Amr Boi” for class II; iii) “Amr Boi” for class III; iv) ”Patabahar” for class IV; v) “Patabahar” for class V have been chosen through the purposive sampling technique as samples in this study. Primary Education Board, School Education Department, govt. of West Bengal, India was the publisher of the textbook. This textbook has been implemented in government primary schools only. But most private schools have different textbooks than government primary schools. Private school textbooks were not included in this study. The validity of research data used credibility, transferability, triangulation, dependability, and confirmability (John W. Creswell & Creswell, 2018; Scott, 1990).

Data analysis
Researchers systematically gathered data through content analysis, employing a meticulous approach. They conducted a thorough examination of textbooks, scrutinizing each page, as outlined by Collado and Atxurra in 2006. The primary focus was on identifying the gender-related structure and representation within images, encompassing photographs and illustrations featuring human characters. The analysis unfolded in multiple steps. Initially, all images were categorized into those featuring human characters and those without. Subsequently, each image with human characters underwent gender identification, specifically in relation to occupational and working roles, leisure time activities, and the presentation of role models. The researchers then provided detailed descriptions, offering insights into the observed patterns. Finally, the researchers concluded, culminating in the preparation of the comprehensive final report.
RESULTS

Table 1. Examples of Images related to gender stereotypes and bias in games and leisure time activities.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Football is played by males</td>
<td>Class-I “Amr Boi” pp.-60</td>
</tr>
<tr>
<td>Cricket is played by males</td>
<td>Class-II “Amr Boi” pp.-26</td>
</tr>
<tr>
<td>Kite flying by males</td>
<td>Class-V pp.-122</td>
</tr>
<tr>
<td>Run competition by males</td>
<td>Class-III “Amr Boi” pp.-47</td>
</tr>
<tr>
<td>Yoga by male</td>
<td>Class-I “Amr Boi” pp.-45</td>
</tr>
<tr>
<td>Rope jumping by a female</td>
<td>Class-I “Amr Boi” pp.-60</td>
</tr>
<tr>
<td>Doll playing by female</td>
<td>Class-I “Amr Boi” pp.-56</td>
</tr>
<tr>
<td>Ludo played by female</td>
<td>Class-II “Amr Boi” pp.-252</td>
</tr>
</tbody>
</table>
Table 2. Examples of gender stereotypes and bias gender in images related to the profession and working role.

<table>
<thead>
<tr>
<th>Working in the field by male</th>
<th>Male as shopkeeper; Source: Class-II “Amr boi” pp.-23</th>
<th>Male as Driver and Traffic Surgeon; Source: Class-II “Amr boi” pp.-42</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source: Class-V “Patabahar” pp.-55</td>
<td>Male as Mason; Source: Class-II “Amr boi” pp.-233</td>
<td>Male as Musician; Source: Class-II “Amr boi” pp.-243</td>
</tr>
<tr>
<td>Selling and buying Fruits by Males; Source: Class-II “Amr boi” pp.-164</td>
<td>Male as Navy officer; Source: Class-II “Amr boi” pp.-234</td>
<td>Male as Teacher; Source: Class-I “Amr boi” pp.-30</td>
</tr>
<tr>
<td>Male as postmaster; Source: Class-II “Amr boi” pp.-234</td>
<td>Male as a soldier; Source: Class-II “Amr boi” pp.-234</td>
<td>Male as Van driver; Source: Class-I “Amr boi” pp.-77</td>
</tr>
</tbody>
</table>
### Table 3. Examples of gender stereotypes and bias gender in images related to the profession and working role.

<table>
<thead>
<tr>
<th>Image</th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td>Child-caring by female Source: Class-V &quot;Patabahar&quot; pp.-80</td>
<td></td>
</tr>
<tr>
<td><img src="image2.png" alt="Image" /></td>
<td>Cooking by female Source: Class-V &quot;Patabahar&quot; pp.-80</td>
<td></td>
</tr>
<tr>
<td><img src="image3.png" alt="Image" /></td>
<td>Sewing by female Source: Class-II &quot;Amr boi&quot;</td>
<td></td>
</tr>
<tr>
<td><img src="image4.png" alt="Image" /></td>
<td>Break the paddy by sieve Source: Class-III &quot;Amr boi&quot; pp.-85</td>
<td></td>
</tr>
<tr>
<td><img src="image5.png" alt="Image" /></td>
<td>Food distribution by female Source: Class-III &quot;Amr boi&quot; pp.-169</td>
<td></td>
</tr>
<tr>
<td><img src="image6.png" alt="Image" /></td>
<td>Sewing by female Source: Class-I &quot;Amr boi&quot; pp.-65</td>
<td></td>
</tr>
<tr>
<td><img src="image7.png" alt="Image" /></td>
<td>Bring water by females Source: Class-I &quot;Amr boi&quot; pp.-150</td>
<td></td>
</tr>
<tr>
<td><img src="image8.png" alt="Image" /></td>
<td>Female as a house cook Source: Class-I &quot;Amr boi&quot; pp.-192</td>
<td></td>
</tr>
<tr>
<td><img src="image9.png" alt="Image" /></td>
<td>Food serving by female Source: Class-I &quot;Amr boi&quot; pp.-193</td>
<td></td>
</tr>
</tbody>
</table>

1. Child-caring by female Source: Class-V "Patabahar" pp.-80
2. Cooking by female Source: Class-V "Patabahar" pp.-80
3. Sewing by female Source: Class-II "Amr boi"
4. Break the paddy by sieve Source: Class-III "Amr boi" pp.-85
5. Food distribution by female Source: Class-III "Amr boi" pp.-169
6. Sewing by female Source: Class-I "Amr boi" pp.-65
7. Bring water by females Source: Class-I "Amr boi" pp.-150
8. Female as a house cook Source: Class-I "Amr boi" pp.-192
9. Food serving by female Source: Class-I "Amr boi" pp.-193

Garland by female Source: Class-I "Amr boi" pp.-217
**Table 4.** Examples of gender stereotypes and bias in images related to role model presentation

| Boys carrying heavy weight and Girls carrying lightweight; Source: Class-I “Amr boi” pp.-9 | Human body parts showed by male; Source: Class-I “Amr boi” pp.-16 | Male as teacher and female as a student; Source: Class-I “Amr boi” pp.-31 |
| Healthiness showed by male; Source: Class-I “Amr boi” pp.-153 | A gentleman; Source: Class-II “Amr boi” pp.-239 | Male as strong; Source: Class-I “Amr boi” pp.-9 |
| Sports instruments specified by gender |

I am Arjun. I have a cricket bat.

You are Rubina. You have a beautiful smile.

She is Rimi. She has a doll.

He is Imran. He has a football.
DISCUSSION

The imagery depiction of sports, games, and leisure time activities with a gender disparity, as observed in India, reflects and perpetuates certain societal norms and expectations. Such portrayals contribute to reinforcing traditional gender roles and stereotypes deeply embedded in the social fabric. The distinction between outdoor activities dominated by male characters and indoor activities associated with female characters can be analyzed within the broader context of Indian society. Historically, traditional gender roles in India have assigned men the role of the provider and protector, often engaging in outdoor activities that require physical strength and endurance. On the other hand, women have been assigned roles centered around the household, leading to the association of female characters with indoor activities, which are perceived as more nurturing and domestic. These depictions not only mirror societal norms but also play a role in shaping and perpetuating them. By consistently representing male characters in outdoor sports and females in indoor activities, media, and visual narratives inadvertently contribute to the reinforcement of these gendered stereotypes. This not only limits the scope of activities considered appropriate for each gender but also influences societal expectations regarding the roles and capabilities of men and women.

The depiction of gendered roles in professional and working activities, where male characters are often portrayed in outdoor settings while female characters are confined to indoor spaces, reflects and reinforces prevalent gender norms within the social context of India. This imagery mirrors traditional societal expectations regarding the roles of men and women in the professional sphere and contributes to the perpetuation of gender stereotypes. Historically, traditional gender roles in India have assigned men roles associated with outdoor work, such as those requiring physical strength or engagement with the public sphere. Conversely, women have been predominantly associated with indoor roles, often centered around caregiving, administration, or tasks perceived as more domestic in nature. These depictions in imagery not only reflect existing gender biases but also have the potential to shape public perceptions and expectations. By consistently portraying male characters in outdoor professional activities and relegating female characters to indoor settings, the media inadvertently reinforces the notion that certain jobs and roles are inherently gendered. This can influence societal attitudes towards the types of professions deemed suitable for each gender and may contribute to the underrepresentation of women in certain sectors.

The dominance of male characters as superior role models in media representations is reflective of deep-seated societal norms and values in India. Historically, Indian society has been patriarchal, with men traditionally occupying positions of power and authority in both public and private spheres. This power dynamic is often reinforced and perpetuated through various cultural mediums, including media and entertainment. In the context of role models, male characters are frequently portrayed as strong, assertive, and successful individuals who are capable of overcoming challenges and achieving their goals. They are often depicted as leaders, innovators, and decision-makers, embodying qualities that are traditionally associated with leadership and success. These portrayals not only reflect societal expectations but also contribute to the reinforcement of gender norms, which position men as the ideal role models for both men and women. Conversely, female characters are often sidelined or relegated to secondary roles in media representations, especially when it comes to portraying them as role models. Even when female characters are depicted as successful or accomplished, their achievements are sometimes overshadowed or downplayed compared to their male counterparts. This imbalance in representation not only perpetuates stereotypes about gender roles and capabilities but also reinforces the notion that male achievements are inherently more valuable or worthy of recognition.

CONCLUSION

According to the results of the study it has been concluded that gender bias and stereotypes are present in the imagery depiction of textbooks of the West Bengal Board of Primary Education.
Content analysis of the textbooks demonstrated that gender discrimination existed in different professions and working roles, in games and leisure activities, and role model pictures. So, gender representation in textbooks is unequal. This practice violates both genders' fair treatment principles. It affects pupils' mental growth and ideology regarding males and females, as well as their cognition, behavior, and socialization. Gender-inclusive textbooks must be established within the institution. As a result, specific efforts should be made to eradicate gender bias from textbooks to create a stable society in which both genders are treated equally. Gender equality improves the security and wellness of our society. Gender equality in education promotes a safe and healthy atmosphere in which all children may get a high-quality education.

Recommendations
There are four recommendations. Firstly, in-house training programs for editors, authors, designers, illustrators, and photographers on various aspects of gender issues in society should be ongoing; Secondly, publishers should create a comprehensive assessment checklist for detecting gender bias and stereotypes in textbooks. Every editor in every subject should use the checklist; Thirdly, additional research on gender representation in textbooks is anticipated, as well as any other gender-related problems that might be present; Last, before using a textbook, teachers must evaluate the textbooks, and teachers need to read books, current journals, and articles to become better knowledgeable about gender issues.

Limitations and Contribution
Due to a lack of sufficient time, only five textbooks of primary-level Bengali language textbooks were chosen for content analysis to study gender biases and stereotypes in imagery depiction. Other textbooks could be considered. The study's findings aid in the development of guidelines, strategies, and policies for implementing various programs and schemes for gender-friendly curricula and textbooks.

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