Challenges in Identifying Text-Based Biases in Ethnicity and Inclusivity in Learning Materials: Insights from Teacher Module-Writers

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ABSTRACT

Purpose: Learning materials are tools to promote inclusivity and cultural awareness. The present study examines the challenges public school teacher module-writers encountered in identifying text-based biases in the textbooks and other learning materials they used, focusing on biases in ethnicity and inclusivity.

Patients and methods: The study employs the descriptive survey design of quantitative research, wherein the needed data are gathered through a questionnaire to thirty (30) public school teachers who are module-writers and are purposively selected. The data collected are analyzed using descriptive statistics (mean and standard deviation).

Results: The findings highlight challenges addressing ethnicity and inclusivity biases in learning materials, including accessing culturally sensitive resources and evaluating inclusive materials. These insights form the basis for a training proposal to identify text-based biases and promote cultural awareness among teacher module-writers. Continuous implementation and expansion of this training to other schools are recommended for sustainable professional development.

Conclusion: The challenges in addressing ethnicity and inclusivity biases in learning materials highlight the need for continuous training and resource support to promote sustainable professional development across schools and among teachers.

1. INTRODUCTION

Learning resources, including teaching and learning materials (TLMs) or instructional materials (IMs), are essential in helping to promote educational goals. They enable and maintain successful teaching-learning strategies and improve curricular, instructional, and academic output (Lewis, 2024). To be effective, IMs must be available, accessible, appropriately used (Frimpong, 2021), diversified with ICT (DepEd Order No. 42, s. 2017), inclusive (DepEd Order No. 18, s. 2020; Republic Act No. 10533) and locally produced and context-based (RA 10533). While teachers are the primary instructional resource, diverse and interactive materials, devices, tools, or platforms undeniably enhance students' interest, engagement, and outcomes. Teachers must develop, adopt, and implement quality instructional materials to boost learning outcomes (Basalo & Salvador, 2022).

Among learning resources, textbooks expose students to the kind of nationality the state desires to form, which, in the long run, contributes to the birth of a collective national identity (Java, 2024). These references should not be weaponized for bias that may affect learners' conception and learning development.

Teachers encounter numerous challenges in real-life classroom settings, including selecting, adopting, developing, implementing, and evaluating instructional materials. Also, not all IMs, mainly textbooks, modules, or worktexts used by schools, are responsibly examined and evaluated, as some contain errors and are flagged with biases.

One concern is gender bias. Many times, such materials show insensitivity and exclusion by supporting gender stereotypes and ignoring other points of view. Examining textbooks revealed a pro-male bias whereby women were underrepresented and represented in conventional, less prestigious roles, therefore supporting patriarchal norms (Islam & Asadullah, 2018). Beyond gender, this prejudice includes the exclusion of minorities and people with impairments, as noted in scientific textbooks (Poredi, 2017).

The lack of gender balance and sensitivity in textbooks can change students' impressions and academic performance. Textbooks also reinforce patriarchal ideas, impacting students' perspectives and restricting their academic and career objectives (Košir & Lakshminarayanan, 2022; Mutekwe & Modiba, 2012). In the Philippines, sexism was also evident in textbook references, with sexist language demonstrating unfair treatment towards females (Muncada, 2018). Jacinto et al. (2020) also found that Grade 1 textbooks show more female visual representations, with males depicted in physical roles and females in emotional roles, indicating persistent gender stereotyping.

More common are cultural and racial prejudices in the teaching resources. These can significantly influence how students view and comprehend many cultures. Reviewing textbooks revealed a dearth of ethnic origins, which resulted in misrepresentation and removal of many perspectives (Hildingsson, 2004; Ndura, 2004). Lack of inclusivity hinders students' intercultural learning development and critical thinking. For instance, one observation noted an overly sanitized portrayal of cultural knowledge and ethnic diversity in instructional materials, wherein a textbook neglected to depict the ethnic composition of society fairly, thereby stressing the need for more thorough sociolinguistic notes and cultural background to enable successful instruction by non-native teachers (Otlowski, 2003). Also, in the Philippines, in a preliminary study by Sampang (2022) on Grades 1-3 *Araling Panlipunan* (Social Studies) and *Edukasyon sa Pagpapahalaga* (Values Education) textbooks, themes such as the underrepresentation of Indigenous or cultural groups, overgeneralized descriptions of Filipino cultural behaviors, and misconceptions about Indigenous communities were identified. The findings revealed instances of language bias related to ethnicity. In another interesting local study, Delos Reyes (2021) found that indigenous peoples in the Philippines are often stereotyped as poor, marginalized, and inferior, with the term "indigenous" used inconsistently to imply remoteness and backwardness versus urbanity and civilization.

Indeed, the content of the learning resources shapes students' perceptions regarding many cultures and races. Biased materials can support preconceptions and restrict students' capacity to identify and question social injustices. When educational materials neglect to include several cultural points of view, they fail to empower students to recognize distorted voices, sustaining current prejudices (Ndura, 2004).

Developing and choosing inclusive and representative of many civilizations and races helps reduce these prejudices through instructional tools. Learning institutions and teachers must ensure that learning materials are culturally inclusive and sensitive, encouraging equality and cultural awareness. These include eliminating preconceptions, encouraging critical thinking, and creating an atmosphere whereby students feel appreciated and represented. Promoting inclusive and fair learning settings enables teachers to help students build critical thinking abilities and intercultural competencies (Hildingsson, 2004; Ndura, 2004; Otlowski, 2003).

With this information, the researchers surveyed the challenges public school teacher module-writers encountered in identifying text-based biases in the textbooks and other learning materials they used, focusing on biases in ethnicity and inclusivity. Such serves as baseline data in a proposed extension project entitled "Project WRITE (Writing Inclusive Text on Ethnicity) in Mind," conducted by the College of Education of Bataan Peninsula State University-Balanga Campus, among public school teachers who are module-writers in SDO-Balanga City, to empower them to write learning resources, eliminate prejudices, and promote cultural awareness and inclusivity.

II. METHODS

The study employed a descriptive survey method of quantitative research to determine the challenges encountered by public school teacher module-writers in identifying text-based biases in ethnicity and inclusivity in the learning materials used.

Thirty (30) teacher module-writers in SDO-Balanga City, Bataan, Philippines, participated in the survey voluntarily after obtaining their consent. The respondents were purposively selected based on their capability as module-writers from all the public elementary and secondary teachers in the whole school's division.

A researcher-made survey questionnaire was utilized to gather data, which three (3) expert-validators. The validated instrument has a content validity index (CVI) of 0.98, making it highly valid. A dry run of the survey was also conducted with 10 teacher module-writers to ensure the instrument's reliability. The Cronbach Alpha result of 0.9455 indicated that the developed instrument was highly reliable for use with the target respondents. Before conducting the survey, consent forms were also secured from the teacher-respondents.

Descriptive statistics, such as mean and standard deviation, were used to analyze the survey data.

III. RESULTS AND DISCUSSION

A. Challenges Encountered in Identifying Text-Based Biases in Ethnicity and Inclusivity in the Learning Materials Used

Table 1. Challenges Encountered in Identifying Text-Based Biases in Ethnicity and Inclusivity in the Learning Materials Used

Items	Mean	SD	Description | Interpretation
1. Face challenges in identifying subtle biases, stereotypes, and misconceptions related to race, ethnicity, and culture in learning materials.	3.33	0.61	Strongly Agree | Highly Challenged
2. Struggle with finding appropriate and inclusive learning materials that accurately represent diverse cultures and challenge biases.	3.43	0.50	Strongly Agree | Highly Challenged
3. Experience difficulty addressing biases, stereotypes, and misconceptions in learning materials without causing discomfort or confusion among learners.	3.23	0.68	Agree | Challenged
4. Face challenges in balancing the need for cultural sensitivity and inclusivity with the requirements of the curriculum.	3.33	0.66	Strongly Agree | Highly Challenged
5. Struggle with the lack of resources and support for incorporating culturally sensitive and inclusive materials in the classroom.	3.43	0.50	Strongly Agree | Highly Challenged
6. Experience difficulty in measuring the effectiveness of culturally sensitive and inclusive materials on learning, attitudes, and beliefs.	3.37	0.61	Strongly Agree | Highly Challenged
7. Face challenges in keeping up-to-date with the latest resources and materials that promote cultural sensitivity and inclusivity and challenge biases.	3.60	0.62	Strongly Agree | Highly Challenged
8. Struggle with the lack of time for thorough analysis and selection of culturally sensitive and inclusive learning materials.	3.53	0.68	Strongly Agree | Highly Challenged
9. Experience difficulty engaging and educating colleagues about cultural sensitivity, inclusivity, and bias reduction.	3.30	0.65	Strongly Agree | Highly Challenged
10. Face challenges in overcoming personal biases, stereotypes, and misconceptions that may influence the selection and use of learning materials.	3.27	0.74	Strongly Agree | Highly Challenged
Composite	**3.38**	**0.63**	**Strongly Agree | Highly Challenged**

Legend: 4 (3.26-4.00 | Strongly Agree | Highly Challenged); 3 (2.51-3.25 | Agree | Challenged); 2 (1.76-2.50 | Disagree | Less Challenged); 1 (1.00-1.75 | Strongly Disagree | Not Challenged)

The table highlights the significant challenges faced in addressing text-based biases related to ethnicity and inclusivity in learning materials, with the highest mean scores indicating the most pressing issues.

The greatest challenge is keeping up-to-date with the latest resources that promote cultural sensitivity and inclusivity (Mean=3.60; SD=0.62). This is closely followed by the struggle to find adequate time to thoroughly analyze and select inclusive learning materials (Mean=3.53; SD=0.68). Finding appropriate and inclusive materials that accurately represent diverse cultures is also highly challenging (Mean=3.43; SD=0.50), as is the lack of resources and support for incorporating these materials into the classroom (Mean=3.43; SD=0.50).

More so, measuring the effectiveness of culturally sensitive materials on learning outcomes presents another significant hurdle (Mean=3.37; SD=0.61). Identifying subtle biases and stereotypes in learning materials is also highly challenging (Mean=3.33; SD=0.61) and balancing cultural sensitivity with curriculum requirements (Mean=3.33; SD=0.66). Engaging colleagues about the importance of inclusivity (Mean=3.30; SD=0.65) and overcoming personal biases (Mean=3.27; SD=0.74) are additional notable challenges. The least challenging, yet still significant, is addressing biases without causing discomfort or confusion among learners (Mean=3.23; SD=0.68).

The composite score (Mean=3.38, SD=0.63) shows strong agreement on the critical relevance of these issues, underlining the requirement of strong support structures and resources to eliminate prejudices and promote inclusiveness in learning materials.

The findings also amplify what Sampang (2022) has observed: textbook writers commit biases, and teacher module-writers must be trained to be sensitive and inclusive in writing learning resources for their students.

B. Proposed Training Plan

The proposed training plan aims to promote ethnic inclusivity in educational materials through structured activities. The initial meeting between extensionists and officials aims to establish a concrete schedule for the extension plan. Developing an ethnic-inclusive writing guidebook and seminar-workshop materials aims to provide essential tools for training textbook writers and editors. The orientation and seminar workshop aims to teach teacher module-writers about ethnic-inclusive writing, leading to the development of more inclusive learning resources (i.e., textbooks, learning activity sheets, and self-learning kits). This holistic strategy ensures that all teacher-participants are prepared and united in promoting inclusivity in educational resources.

Indeed, with such a contextualized training plan for teacher module-writers, instruction, and learning experiences can efficiently address learning differences among students (Magno et al., 2016) using localized resources (Pecson, 2014), promoting inclusivity and sensitivity.

Table 2. Proposed Training Plan

Activities	Objectives	Indicators	Strategies	Persons Involved	Outputs
Initial Meeting of extensionists and SDO-Balanga officials	To confirm the extension plan and schedule	Organized calendar of activities	Request for a synchronized schedule of extensionists	University extensionists and SDO officials	Concrete plan and schedule of activities
Development of ethnic inclusive writing guidebook based on the research findings	To have a cohesive tool for the seminar workshop	Accomplishment of the writing guidebook	Write an ethnic-inclusive writing guidebook	Project extension team	Ethnic Inclusive Writing Guidebook
Development of ethnic inclusive writing orientation and seminar workshop design	To develop seminar workshop tools and materials	Accomplishment of content, PowerPoint presentation, and program	Create a powerful content, presentation, and seminar-workshop design	Project extension team	Ethnic inclusive writing seminar-workshop materials
Conduct ethnic-inclusive writing orientation, seminar, and workshop among grade school textbook writers and editors	To present the ethnic inclusive writing concept and to conduct a seminar workshop	Participation of selected grade school text and instructional writers and editors	Well-coordinated schedule with endorsement from the Central and Main ETSO	Project extension team	A more ethnic-inclusive textbook and instructional materials

IV. CONCLUSION

The findings indicate that addressing ethnicity and inclusivity biases in learning materials is challenging. Significant hurdles include accessing up-to-date, culturally sensitive resources, finding time to evaluate inclusive materials, and sourcing accurate, diverse representations. These indicate that strong support and resources are essential to promote inclusivity and reduce prejudices effectively. Hence, the findings serve as a baseline for the training proposal for teacher module-writers on identifying text-based biases and promoting cultural awareness and inclusivity through an extension project spearheaded by the College of Education of the University.

It is also recommended that the training materials used for teacher module-writers be continuously implemented in all subject areas to ensure sustainable professional development assistance. The extension project may be cascaded to other schools or continuous improvement initiatives.

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VI. DISCLOSURE

The authors report no conflicts of interest in this work.

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