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Review of Yemen's Secondary Curriculum: Evaluating Textbooks for Safety, Resilience, and Social Cohesion

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Abstract



Education serves as the cornerstone of societal progress, instilling essential skills, attitudes, and values needed to navigate complex realities. In Yemen, amid conflict and natural disasters, a robust curriculum is critical. This study critically evaluated Yemen's secondary school curriculum according to UNESCO's guidelines, focusing on safety, resilience, and social cohesion. Utilizing the Context, Input, Process, and Product (CIPP) evaluation model, the research aimed to identify areas for improvement and develop a curriculum that equips students for future challenges. The study had three objectives: (i) to determine the presence of UNESCO's attributes of safety, resilience, and social cohesion in the curriculum, (ii) to assess the implementation of these attributes, and (iii) to recommend enhancements for any missing areas. Research instruments included a review checklist for textbooks that was pilot-tested and validated. Data were collected from 30 textbooks covering 12 subjects from both semesters of the 10th grade, representing the initial year of the three-year general secondary education period. Findings revealed significant gaps in the curriculum's coverage of critical themes. The study proposed recommendations for curriculum enhancement, emphasizing the integration of safety, resilience, and social cohesion to better prepare students. This research aims to inform evidence-based decision-making and empower educators to create resilient and cohesive learning environments.

Keywords: CIPP Model, Crisis-Affected Education, Mixed-Methods Research, Educational Reform.

Introduction

Humanitarian crises, including conflicts, natural disasters, and climate-related events, are on the rise globally, displacing entire communities and severely impacting children and youth. These crises disrupt all aspects of daily life, from housing and health to education, necessitating collaborative efforts among stakeholders to promote safety, resilience, and cohesion within communities (UNESCO-IIEP, 2015b).

The global situation regarding education amid natural and man-made disasters is alarming. Each year, an estimated 175 million children are affected by natural disasters, limiting their access to education and exposing them to physical harm and trauma (UNESCO et al., 2011). Conflict further exacerbates this issue, severely diminishing the quality of education due to violence, fear, and safety concerns (Muthanna et al., 2022). Over 40% of children not receiving an education live in conflict-affected countries, with 28 million primary school-aged children in poor, conflict-ridden nations not attending school. The 2011 Education for All Global Monitoring Report emphasizes the necessity of supporting education in crisis-affected areas and promoting inclusive, equitable education systems that can adapt to changing circumstances (Jha, 2011).

Yemen, a country devastated by civil war and frequent natural disasters such as droughts and floods, faces profound educational challenges exacerbated by the COVID-19 pandemic. The conflict in Yemen has severely damaged the education system, with over two million out of seven million school-age children not attending school and about half a million dropping out since the conflict

began in 2015. According to UNICEF, children out of school face dangers such as forced participation in battles, labor, or early marriage. Currently, 2,500 schools are non-operational, with 27% completely closed and 7% used as shelters or camps. The ongoing conflict and lack of stable solutions have left displaced young people feeling hopeless and lost (UNICEF, 2021; Ghafar & Masri, 2016).

In addition to these educational challenges, Yemen is increasingly vulnerable to natural disasters like floods, storms, and desertification. The lack of infrastructure and a stable government worsens the situation. In 2015, two of the strongest Arabian Sea storms hit Yemen, causing severe flooding, numerous deaths, the destruction of homes, and the displacement of many people. The combination of conflict, poverty, and natural disasters has created a dire situation for the country's youth, compounding their sense of hopelessness and loss (CDP, n.d.; Noaman, 2021; Lackner & Al-Eryani, 2020).

Both natural disasters and conflicts pose immediate risks to the physical and psychological well-being of students, teachers, and education sector personnel. Curriculum development is crucial in mitigating these risks, preparing schools and communities to respond effectively to emergencies, and promoting social cohesion. A resilience-focused curriculum enables education systems and learners to withstand, adapt to, and recover from shocks like natural hazards and armed conflicts, fostering economic and social development while reducing vulnerability (UNESCO-IIEP, 2015a).

In response to these challenges, studies like the one outlined here critically evaluate the effectiveness of educational curricula in crisis contexts. This research aims to assess and enhance Yemen's secondary school curriculum through the lens of safety, resilience, and social cohesion, using frameworks like UNESCO's guidelines. By employing a rigorous review checklist for textbooks, the study seeks to identify gaps in the curriculum, improve content representation, and propose recommendations to better prepare students to navigate and thrive amidst ongoing crises. This focused approach not only addresses immediate educational needs but also contributes valuable insights and strategies for policymakers and educators grappling with similar challenges globally.

Method

The study employed a quantitative approach, utilizing a review checklist to systematically assess the representation and implementation of safety, resilience, and social cohesion in Yemen's secondary school curriculum. The primary instrument was a review checklist applied to 30 textbooks across 12 subjects from both semesters of the 10th grade, focusing on various content areas and learning outcomes relevant to the three attributes.

The review checklist facilitated the calculation of frequencies and percentages of observed data, providing a structured and objective assessment of curriculum materials. This quantitative analysis revealed significant gaps and areas for improvement in the curriculum, specifically in integrating safety, resilience, and social cohesion. Based on the data analyses, the following results were attained:

Findings & Discussion

Safety Education in Yemen's Curriculum: Addressing Critical Gaps

In an increasingly interconnected world, the imperative to ensure safety and mitigate disaster risks has risen to unprecedented levels. The Sendai Framework for Disaster Risk Reduction 2015-2030 stands as a testament to this urgency, recognizing the pivotal role of reducing disaster risks and bolstering resilience for sustainable development (UNDRR, 2015). This global framework emphasizes the need for proactive strategies, including risk identification, infrastructure enhancement, and early warning systems, aimed at mitigating the impacts of disasters (Pearson & Pelling, 2015). Cutter and his colleagues (2014) highlight the crucial importance of community-level disaster preparedness and mitigation efforts, underscoring how localized interventions and community involvement can significantly minimize the adverse effects of disasters, particularly in regions susceptible to natural calamities like tsunamis.

Education emerges as a foundational pillar in disaster risk reduction initiatives. Instances such as the aftermath of the 2010 earthquake in Haiti vividly underscore the critical need for resilient educational infrastructure that can withstand and recover from catastrophic events. Embedding disaster risk reduction education into school curricula empowers young learners to become proactive agents of change, equipped with the knowledge and skills to address vulnerabilities and contribute effectively to community resilience (UNICEF, 2021). Maslow's Hierarchy of Needs further reinforces

the fundamental requirement of safety for enabling effective learning and personal growth, highlighting its role as a foundational element before individuals can engage with higher-order needs such as self-actualization (Maslow, 1943).

Man-made disasters, such as conflicts, and natural disasters, such as earthquakes, floods, and hurricanes, pose significant threats to educational environments, jeopardizing the safety and well-being of students and educators alike. Hence, disaster risk reduction (DRR) assumes critical importance in safeguarding these educational sanctuaries. DRR involves proactive strategies and judicious allocation of resources to mitigate vulnerabilities and curtail risks posed by disasters (UNDRR, 2015; Wisner et al., 2004). Institutions that integrate robust DRR measures not only protect the physical welfare of their students but also serve as models of community preparedness and resilience-building.

Although disasters and conflicts represent two very different kinds of emergencies, they both pose an immediate risk to the physical and psychological health and development of students, teachers, and other education sector personnel, as well as threatening their lives. Therefore, the curriculum must address such concerns in ways that can protect schools and societies from immediate risks while aiming to reduce the hazards of approaching disasters and mitigate the effects of ongoing and recurring conflicts (Jennifer et al., 2015).

Yemen is a country grappling with profound crises, including ongoing conflict, pervasive poverty, and increasing susceptibility to natural disasters such as floods, storms, and desertification. These challenges underscore the urgent need for robust safety and disaster risk reduction strategies. However, recent studies reveal that these critical topics are significantly underrepresented in Yemen's educational materials. The reviewed textbooks show an alarmingly low percentage of content dedicated to safety and disaster risk reduction, indicating a major gap in the curriculum. This deficiency poses a risk to students' awareness and preparedness for disasters, particularly in areas frequently affected by such events. To address this shortfall, comprehensive revisions and enhancements to the curriculum are crucial. Emphasizing safety and disaster preparedness in education can help equip students with vital life skills and knowledge, fostering safer learning environments and ensuring their well-being amidst diverse risk landscapes.

Resilience Education in Yemen's Curriculum: Room for Improvement

In a world fraught with challenges and disruptions, resilience—defined as the ability to endure and recover from adversity—has gained significant importance. This attribute is crucial in fragile contexts such as Afghanistan, where education serves as a catalyst for fostering resilience within communities affected by conflict. Education offers psychosocial support to children, equipping them with coping mechanisms to navigate traumatic experiences (Save the Children, 2017).

Resilience-building involves nurturing social connections, fostering adaptive coping strategies, and cultivating a sense of agency in individuals (Masten, 2018). In educational settings, resilience is nurtured by creating inclusive and supportive environments that empower students to develop emotional intelligence and problem-solving skills. Initiatives like the Education Cannot Wait (ECW) fund exemplify the convergence of education and resilience-building, ensuring continuity of learning and psychosocial support for children affected by crises, thereby contributing to their overall resilience (ECW, n.d.).

The concept of resilience profoundly influences effective learning and holistic welfare. In educational psychology, resilience is defined as the ability to adapt and rebound from adversities, enabling individuals to maintain a balanced sense of well-being (Masten, 2001). This is particularly relevant in educational environments, where students face a range of challenges, including academic pressures and complex social dynamics.

Integrating resilience into educational curricula has become imperative, equipping students with the tools to confront life's challenges while enhancing their overall well-being (Hartley, 2010; Howe et al., 2012; Stallman, 2011). Students who develop personal resilience experience reduced psychological disturbances, enhanced well-being, readiness for higher education, and mitigated stress during their initial year at university (Carter et al., 2017).

The benefits of resilience extend beyond psychological well-being. It significantly impacts students' engagement levels, enabling them to navigate complex tasks, address diverse life challenges, and optimistically harness opportunities (Baik et al., 2017). Fostering resilience within curricula is crucial for safeguarding students' long-term health and well-being (Veness, 2016). This requires a

multi-tiered approach, starting at the holistic education system level, followed by program design, and culminating at the subject-specific level (Carter et al., 2017). This comprehensive approach ensures that resilience cultivation is seamlessly woven into every aspect of the educational journey, empowering students to navigate life's complexities and thrive despite adversity.

Resilience is not merely an innate trait but can be nurtured through various strategies, including fostering a supportive environment and teaching coping mechanisms (American Psychological Association, 2014). Institutions that promote resilience not only enhance academic achievements but also prepare students to face life's challenges with fortitude (Zimmerman, 2013). For example, resilience training can help students manage stress, thereby improving their concentration and retention capabilities, which are essential for academic success (Yeager & Dweck, 2012).

The impact of resilience extends beyond the individual, resonating throughout society. Students who develop resilience are more likely to become conscientious, hardworking citizens who can adapt to changes and contribute positively to their communities (Werner, 1995). Educational systems that embed resilience cultivation within their curricula invest in future generations, equipping them not only to overcome academic hurdles but also to face life's challenges with poise (Garmezy, 1991). Resilience is not just a buzzword but a crucial life skill that profoundly shapes learning outcomes and overall well-being. By incorporating resilience-building initiatives within educational contexts, we embark on a journey that enhances academic achievements and makes a lasting commitment to the future of our students and society.

In Yemen, the integration of resilience into the curriculum is critical yet currently limited. While the percentage of resilience-related content is higher than that of safety, disaster risk reduction, and social cohesion, it remains relatively small. This highlights an opportunity to further embed resilience within educational materials. Resilience is vital for students as it equips them to overcome challenges, adapt to changes, and manage stress and adversity. The minimal focus on resilience in the curriculum suggests that students may not be receiving sufficient education on strategies and behaviors that enhance their ability to handle personal or communal hardships effectively. Increasing the presence of resilience-focused content could significantly benefit students' emotional and psychological development.

The review of current educational content reveals notable gaps in resilience education, with essential elements such as developing a positive self-concept, turning challenges into opportunities, and envisioning a positive future being underrepresented. This underscores the need for a more comprehensive approach to fostering resilience and overall student well-being.

In conclusion, integrating resilience into Yemen's educational curricula is not only beneficial but essential. It provides students with crucial life skills, improves their well-being, and prepares them to face and overcome the challenges of the modern world. By prioritizing resilience, we can ensure that students are better equipped to thrive academically and personally, contributing positively to their communities and society at large.

Social Cohesion Education in Yemen's Curriculum: Enhancing Representation

In today's interconnected and diverse world, education plays a crucial role in promoting social cohesion and nurturing harmonious coexistence among individuals from different backgrounds. UNESCO's Global Citizenship Education (GCED) underscores the importance of values such as empathy, respect, and cultural diversity, empowering individuals to engage with global challenges and contribute positively to societal transformations (UNESCO, n.d.).

Verkuyten (2019) highlights the significance of intergroup interactions in fostering social cohesion. Educational initiatives that facilitate meaningful exchanges among individuals from diverse backgrounds help challenge stereotypes and prejudices, fostering mutual understanding and empathy.

Rwanda's "One Class, One Friendship" program exemplifies the transformative potential of education in rebuilding social cohesion. By bringing together students from various ethnic backgrounds, this initiative cultivates empathy, unity, and mutual respect, laying a strong foundation for a more cohesive society (UNESCO, 2021).

Social cohesion within educational contexts refers to the willingness of individuals within a community to collaborate harmoniously for collective well-being (Berger-Schmitt, 2000). Educational institutions serve as catalysts for promoting social cohesion by creating inclusive environments that foster a sense of belonging and cooperation among students, educators, and staff.

Learning to live together, as identified by UNESCO, is fundamental in 21st-century education. It encompasses skills such as understanding diverse perspectives, effective collaboration, and conflict resolution—essential for navigating a globalized world characterized by cultural diversity (Delors et al., 1996).

Research indicates that schools emphasizing social cohesion experience improved academic outcomes and reduced disciplinary issues (Johnson & Johnson, 2009). A cohesive school environment reduces stress and anxiety among students, enhancing their focus and engagement in learning (Anderman, 2002). Moreover, skills such as empathy, teamwork, and conflict resolution, acquired through these experiences, are critical life skills valued in professional and societal contexts (Lopes et al., 2016).

Promoting social cohesion within educational settings extends beyond the classroom, contributing to broader societal harmony. Individuals who embrace social cohesion are more likely to actively participate in community life, advocating for inclusivity and social justice (Putnam, 2000).

In the context of Yemen, social cohesion within the educational curriculum is both a critical and evolving focus. The curriculum effectively promotes inclusivity and unbiased education, as evidenced by its representation and avoidance of stereotypes. However, there is room for improvement, particularly in enhancing the visual appeal of some textbooks and incorporating more culturally relevant examples to ensure a balanced and comprehensive educational experience for all students.

The curriculum demonstrates a thoughtful approach to various themes, extending beyond safety and resilience to include social cohesion and other critical areas. Yet, this approach may be somewhat imbalanced. There is a need for a more focused inclusion of social cohesion, learning to live together, and resilience education to create a more inclusive and well-rounded curriculum.

In essence, fostering social cohesion and learning to live together through education is crucial for building an inclusive Yemeni society where individuals respect and appreciate each other's differences. By integrating these values into educational curricula, we empower students to become responsible global citizens capable of addressing complex challenges and promoting sustainable development.

Delimitations & Conclusions

Overall, the study's findings have significant implications for educational policy and practice, not only in Yemen but also globally. By bridging the gap between theory and practice, the research aims to inform evidence-based decision-making and empower educators to cultivate more resilient and cohesive learning environments. However, the study specifically examines the integration of safety, resilience, and social cohesion within the curriculum for 10th graders, shedding light on critical educational insights. Despite its valuable contributions, the study acknowledges several limitations, such as its focus on specific grade levels, reliance on a limited group of educational experts, and the chosen research methodology. These acknowledged constraints do not diminish the study's significance but rather highlight areas warranting further investigation. They pave the way for future research initiatives aimed at expanding our understanding of these pivotal topics within the broader landscape of educational practices.

Based on the comprehensive examination of safety, resilience, and social cohesion within the educational context, several pivotal conclusions emerge. Firstly, the analysis reveals critical gaps in the curriculum's emphasis on safety education and disaster preparedness, highlighting a pressing need for enhanced educational strategies to equip students with essential skills for navigating environmental and societal risks effectively. Secondly, while the curriculum promotes resilience through interpersonal skills and moral education, there remains room for improvement in integrating practical resilience strategies to better prepare students for challenges. Thirdly, although the curriculum's focus on social cohesion demonstrates positive strides in inclusive education and cultural relevance, there is a need to address gaps in environmental sustainability and global awareness. Lastly, effective leadership in crisis management and school infrastructure resilience is crucial, necessitating ongoing monitoring and collaborative efforts to ensure safe and supportive learning environments across diverse educational settings. These conclusions collectively underscore the urgency for comprehensive curriculum reforms, enhanced teacher training, and systemic enhancements to foster safety, resilience, and social cohesion effectively within educational frameworks.

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