

JORDANIAN TEXTBOOKS AND EDUCATION FOR SUSTAINABLE DEVELOPMENT: ANALYZING REFORM IN CURRICULUM DESIGN

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ABSTRACT

The current paper review examines the processes involved in comprehensive curriculum reform in Jordanian textbooks, addressing the limitations of current educational models, which often prioritize rote memorization at the expense of critical thinking, creativity, and practical skills. The proposed reforms are framed within the Education for Sustainable Development approach, advocating for a multidimensional transformation. Key steps involved in successful curriculum reform include an initial evaluation of existing educational frameworks, stakeholder collaboration, content redesign, and ongoing monitoring and evaluation. However, several potential hindrances may obstruct this process, such as resistance to change, limited resources, and inadequate teacher preparation. The review concludes with a discussion on how the success of this reform hinges on the collaborative efforts of policymakers, educators, parents, and students, collectively advancing an educational system that is responsive to contemporary challenges and prepares learners for future opportunities.

Keywords: Education for Sustainable Development, Curriculum reform, Jordan, Integrated curriculum design, Textbooks.

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1. INTRODUCTION

Despite global advancements towards integrating Sustainable Development Goals (SDGs) through Education for Sustainable Development (ESD), Jordan's current curriculum, even after major reforms since 2003, remains traditional and heavily teacher-dependent (Rohde, 2011). This gap prevents the education system from aligning with the global vision of sustainable development and leaves students underprepared for the environmental, economic, and social challenges of the future.

The United Nations (UN) has significantly contributed to global issues such as peace, human rights, and socio-economic development (Coleman & Jones, 2004). In September 2015, the UN General Assembly established Sustainable Development Goals (SDGs) in an attempt to resolve demanding global concerns by the year 2030. The 17 SDGs had one common focus, which was to “leave no one behind”. This placed a significant responsibility on educational systems worldwide to adapt their curriculum to include these global challenges. According to Trent and Schnurr (2018), Education for Sustainable Development is a key tool to cultivate a peaceful and sustainable society.

There are many countries that have already established ESD in their curriculum and can serve as good examples to learn from in terms of implementation and planning for reform in curriculum design. Countries like Mauritius, Finland, Togi, and Manitoba have integrated into their curriculum frameworks, with close cooperation from the respective ministries of

Education and Human Resources (Cars & West, 2014; Rieckmann et al., 2017).

In Jordan, the curriculum remains predominantly focused on teacher-led instruction, which limits students' ability to actively engage in problem-solving and sustainability education (Rohde, 2011). The lack of ESD in the curriculum fails to equip students with the skills required to tackle pressing issues such as climate change, poverty, and social inequalities (Sahlberg, 2006).

The persistence of traditional educational methods in Jordanian schools, coupled with the global urgency to address SDGs, makes the absence of ESD integration a critical issue. While curriculum reforms have been ongoing, the pace and scope of these changes have not been sufficient to address the SDGs' educational imperatives (Rohde, 2011).

The absence of ESD in Jordanian curricula not only hinders students' readiness to contribute to sustainable development but also places the country at a disadvantage in achieving SDG targets (Brasil, 2021; Razzaz, 2018). This deficiency in education may result in a generation of learners who are ill-prepared to address the environmental, social, and economic challenges of the future.

2. REVIEW OF LITERATURE

For any nation to succeed, educational reforms must be sustainable and result in personae who promote long-term growth and progress for their country. The concept of Education for Sustainable Development (ESD) was developed to raise young individuals who had the aptitude to take and act upon informed choices that would positively affect themselves

and their community in the present-day and the future (Trent & Schnurr, 2018; van der Merwe & Albertyn, 2009).

In a report by the World Bank titled *The Road Not Travelled: Education Reform in the Middle East and North Africa* (Galal, 2008), it is mentioned in general that countries in the Middle East and North Africa (MENA) have a reputation for relying on learning and teaching strategies that limit student capacities to be independent and critical. Furthermore, it has been observed that textbooks in developing countries lack a fair representation of concepts such as social belonging, care for the planet, and most importantly issues concerning human rights, equality, peace, cultural diversity, and inclusion (Galal). This can be applicable in the Jordanian context as well.

It is important to note that textbooks are not just accountable for transferring knowledge, but they are also a means of imbibing different values in children, such as social behavior, civic identity, and an understanding of the world around them (UNESCO, 2016). Curriculum reform within textbooks is essential to consider when the current curriculum does not meet the needs of a fast-evolving economy (Gouëdard et al., 2020; Islamic Educational, Scientific and Cultural Organisation, 1999). This can evolve gradually over a period of time, or it could be a revolutionary process (Islamic Educational, Scientific and Cultural Organisation), as is seen with the emergence of digital learning and the recent novel coronavirus pandemic.

Jordan has been a forerunner in endeavoring to achieve the Sustainable Development Goals, although it faces many trials in terms of economy, lack of sufficient resources, and a huge influx of refugees from neighboring conflict-torn countries (Jordan:

Sustainable Development Knowledge Platform, 2017). With regards to educational policies and the SDGs, a national voluntary review on the implementation of the 2030 agenda for Jordan makes note of a revised educational policy in the country that would “integrate the concepts and principles of sustainable development in all stages of education, which will help build a responsible generation and contribute to economic, social and environmental development” (Jordan’s Way to Sustainable Development, 2015). However, while curriculum reform efforts have been ongoing in the country, they are still not sufficient enough to address the SDGs’ educational imperatives (Rohde, 2011).

For any reform to be successful, it needs to be sustainable (Baglibel et al., 2018). Thus, curriculum reform should have a clear plan and vision. In addition, the design of curriculum should involve a comprehensive knowledge and understanding of pedagogy, learning outcomes, and assessments (Bagibel et al.; Sahlberg, 2006).

3. RESEARCH METHODOLOGY

This study employed a literature-based research method, focusing on the review and analysis of existing scholarly materials. Rather than collecting new empirical data, the research was conducted by systematically gathering and examining information from secondary sources such as books, academic journals, reports, and relevant publications. This method allows for a comprehensive understanding of the research topic through the critical evaluation of previously published findings. The process was conducted analytically and meticulously, enabling the researcher to identify key patterns,

synthesize insights, and draw conclusions based on established knowledge (Snyder, 2019).

3.1 Incorporating ESD into the Jordanian textbook curriculum

There are many factors that come into play when introducing any type of reform into a community. This includes an awareness of various aspects such as the current educational policy in the country, its administrative and financial status, demographical location, and how its socio-cultural attitude (Gouëdard et al., 2020; Islamic Educational, Scientific and Cultural Organization, 1999; Sahlberg, 2006).

This section will propose different steps involved in curriculum reform, with a clear vision of implementing ESD into Jordanian school textbooks.

Step 1: Assessment of existing curriculum

Prior to beginning the reform process, there should be an assessment of different features of curriculum design which would primarily entail examining existing objectives and content in the student books and the presence of teacher support and guidance in supplementary resources. Also, it is essential to consider whether any additional system will be implemented to support the changes in the curriculum (Baglibel et al., 2018; Wedell, 2009).

An article by Rohde (2011) states that although Jordan has advanced greatly in terms of reforming the curriculum, its textbooks for subjects like Social Studies and Civics still have a very conservative approach to learning. The article further

insists that just incorporating technology is not sufficient for reform. With regards to sustainable goals in the Jordanian curriculum, there is no mention of the SDGs anywhere in the curriculum. However, a publication of the UNSDGs released in Arabic (Brasil, 2021) contains lesson plans that can assist teachers in educating students about the goals. It is important to recall here that ESD is cross-disciplinary and cannot be taught individually, but rather should be integrated into the core curriculum for a more beneficial learning outcome.

Assessments of existing curriculum can be done by using different approaches such as local surveys (questionnaires, interviews), examination of existing textbooks with qualified research specialists, and reviews of prior research done related to curriculum and development for textbooks in Jordan.

Step 2: Understanding the needs of stakeholders

For content development, the two most important stakeholders are students and teachers. Gaining an understanding of what an ESD-based curriculum will provide for these stakeholders is essential for the success of the implementation of the reformed content.

For students, an ideal ESD curriculum would incorporate the different cultures around students, support individual development, be socially inclusive, prepare children for lifelong learning, and meet the challenges of current situations (Islamic Educational, Scientific and Cultural Organization, 1999). The revised curriculum would need to support the nation in socio-economic aspects as well – by encouraging young learners to not just be job seekers, but also independent capitalists who

could benefit their nation positively (UNESCO International Bureau of Education, 2016).

Furthermore, this curriculum design would need to demonstrate that each child has a different approach to learning. Thus, it should value each child and give fair opportunities for all. In addition, it should be inclusive in that it involves every child regardless of their race, social and economic background, location, or circumstance (Framework for the Implementation of Education for Sustainable Development Beyond 2019).

For the teacher, an ideal ESD curriculum design would need to be differentiated so that teachers are able to adapt their lessons according to the needs of their learners. This type of curriculum design would encourage teachers to let students take charge of their learning and participate in dialogue and critical thinking (Baglibel et al., 2018).

Step 3: Attaining a group consensus

In order to obtain the necessary funds and approvals for this type of reform in curriculum materials, it is important to first understand and gain a consensus with essential stakeholders involved in education.

In Jordan, the Ministry of Education (MoE) handles all educational matters for pre-primary to grade 12 levels of education (Razzaz, 2018). There is a combination of public and private schools as well as a section of schools (around three percent) under the United Nations Relief and Works Agency for Palestine Refugees (UNRWA). In addition, management of the education system is by different boards in the MoE, such as:

“the general Board of Trustees; the Board of Education; the Planning Commission; the Department of Inspection, Control and Quality Assurance; the Secretariat of the Jordanian National Commission for Education, Culture and Science; and the Office of the Minister” (Razzaz).

In order to initiate reform, policies, and approvals decided upon by the above ministries are essential. A report by UNESCO (2017) states that ESD needs to be “integrated into sub-national, national, sub-regional, regional and international policy frameworks, plans, strategies, programs and processes related to education and to sustainable development” (UNESCO).

Communication is key in approaching stakeholders (Gouëdard et al., 2020). Information that is authentic and that is given from time to time will help create a more openhearted attitude towards change (Baglibel et al., 2018). Some approaches that can be taken to obtain consensus could be by increasing awareness of the vision of reform through workshops and discussions, setting up support commissions for educators, taking the opinions of educators and other people directly involved with the curriculum understanding local needs, and explaining how this reform can assist them in order to avoid any misunderstanding of the intention of the reform (Islamic Educational, Scientific and Cultural Organization, 1999).

Step 4: Determining new objectives and methods

The curriculum developer will need to make important decisions related to pedagogy, knowledge, progression of content, and methods of formative and summative assessments

(Leaton Gray et al., 2018). Once the new objectives have been established, curriculum content will have to match them closely. Other important factors that will need to be considered while establishing objectives and content are results from surveys and other research conducted during the assessment phase.

The goals for ESD will need to be sensibly translated into different disciplines, teaching methodologies, and learning activities (Leaton Gray et al.,). In addition, the SDGs would not be treated as a singular focus, but rather as strands or themes within core school subject areas (Chinapah & Mikiko, 2012; Pigozzi, 2010). Moreover, all learning goals, training and learning strategies, and assessment methods would need to be designed in such a way that they support each other in outcome. Finally, a scaffolding strategy would need to be incorporated in the design, so that learning competencies successfully progress at each level (Rieckmann et al., 2017).

During content development, the three main domains of learning will need to be kept in mind. These are cognitive, affective, and psychomotor skills development (Islamic Educational, Scientific and Cultural Organization, 1999). More emphasis will need to be given to the development of content for the affective domain since this area addresses skills such as values and behavior (Islamic Educational, Scientific and Cultural Organization), both of which are integral to a successful ESD outcome.

There are different approaches that can be considered while developing the teaching methodologies for the content. These could be skills-based, learner-based, spiral, integrated, thematic, or activity oriented. The skills can be presented individually or

as a combination (Islamic Educational, Scientific and Cultural Organization).

Other important factors to consider in curriculum design are who the students will be learning with, what setup they will be learning in, when they will be learning, and how learning will be assessed (Leaton Gray et al., 2018).

Step 5: Accruing proper resources

Having the right resources is necessary for curriculum reform to be achieved effectively. However, it is often the missing link even when there is a consensus on the need for change (Sahlberg, 2006). Mostly, the resources required to develop the new curriculum would be the necessary expertise and technology (Gouëdard et al., 2020). Analyzing resource availability is important in order to successfully plan and implement any reform.

Expertise and personnel required would include program specialists, instructional designers, teachers, professional development trainers, ESD subject matter experts, researchers, and superintendents (Gouëdard et al). In addition, members of the community who would directly be affected by this change need to be considered for essential feedback and consensus. These include students, parents, community leaders, and representatives (Gouëdard et al).

Technology has an important role to play in production of material for textbooks in terms of access to the software needed to produce content, as well as in conducting the research necessary for the above-mentioned phases of reform. Technology will also be an asset in conducting seminars and

workshops for teacher training and communication with stakeholders. Thus, it is feasible to study what technological infrastructure is available in the country (Sahlberg, 2006; Wedell, 2009).

Step 6: Arranging funds/finance

Funding strategies need to be clear. A well-funded program will need to support the implementation of the reform from the beginning till the end (Keltner, 1998). This will reduce the burden on teachers and will enable them to update their practices more efficiently (Keltner). It is better to phase out the reform at first and proceed in a step-by-step manner. Costs should include all aspects mentioned in the stages above, including monitoring and evaluation of the implemented curriculum

In general, Jordan has made attempts to obtain local and international funds to continue its work on the SDGs in general (Jordan's Way to Sustainable Development, 2015). This could apply to educational reform as well.

Step 7: Implementation and monitoring of reform

Before releasing a full-scale program, it is advisable to test the curriculum design on a small scale before making any final decisions (Wedell, 2009; Wotela, 2017). Results from this test can then help guide final decisions and make necessary adjustments. It is important to assess the curriculum once it has been in the process of reform and this aspect is quite challenging for ESD. UNESCO suggests assessing ESD implementation at various stages. Assessments can be in the

form of formative and summative assessments to track individual progress (Rieckmann et al., 2017).

Assessment of the reformed curriculum design is an essential aspect of successful reform implementation in order to grasp the extent to which it has impacted students and teachers especially and to measure whether the concept is being realized in terms of learning outcomes and real-time application (Wedell, 2009). In addition, evaluation and monitoring of the implemented curriculum will help to identify existing limitations, focus on specific areas for improvement, and promote responsibility and transparency for stakeholders (Wedell).

Monitoring and evaluation are a continuous process that involves collecting information, processing the data, and integrating the results for further implementation and reform (Wotela, 2017). Continuous monitoring can enable remedial actions to be taken sooner as well as help determine what area of implementation will need further assistance in terms of resources, training, or even funding (Wotela).

4. DISCUSSION

Curriculum reform in developing countries is often met with numerous hindrances and difficulties, despite the pressing need for modernization to meet the demands of global education standards. These challenges must be carefully addressed to ensure that curriculum reform efforts in developing countries like Jordan, can achieve their intended goals of improving educational outcomes and preparing students for future challenges. This section highlights such possible hindrances and challenges that are specific to the region.

4.1 Data collection difficulty

An example of challenges that can be seen at this level is effectively collecting and analyzing information from textbooks, to analyze which areas of content will need reform (Polikoff, 2018; Sara, 1975). Also, it may be difficult to get hold of research material that is specific to ESD in the region, since countries in the Middle East have poor research-backed evidence for curriculum design (Sara, 1975).

4.2 Resistance to change

Regarding primary stakeholders in curriculum reform especially in the MENA region, teachers are not given enough autonomy in reform processes, and their contributions are rather seen as hindrances to achieving reform. (Harris & Graham, 2018). In addition, for teachers to be actively involved and feel ownership of the proposed curriculum, they will need to be trained in new teaching methodologies (Harris & Graham) which could involve a risk of not receiving equal training opportunities in all parts of the community. Another problem that can be perceived is that there will be an element of resistance if teachers feel threatened or overburdened with too many changes (Harris & Graham). Teacher resistance is common in regions where innovations will disrupt existing comfort zones for them (Fink & Stoll, 2005).

With respect to students, there are possible challenges in terms of students being more comfortable learning with the traditional methods, being more distracted with less control in the proposed content and/or the content under the risk of

being less engaging, and inclusive of all student competences (Fink & Stoll).

4.3 Change in group consensus

A potential risk in dealing with stakeholders at the policy level, is that the persons involved might change, as curriculum content reform can be a lengthy process. This could lead to a possibility of change in consensus on the part of important policymakers, to the extent of desertion of the project (Wedell, 2009). Also, getting a group consensus may not be easy since, similar to the attitudes of teachers, policymakers, and curriculum developers may not be too welcome to change and would be unwilling to spend time and energy on any reform (Wedell). Poor administration and processes in communication also run the risk of losing group consensus (Islamic Educational, Scientific and Cultural Organization, 1999). Among members of a group consensus, it is also important to note that religious and cultural sensitivities will come into play and so there is a risk of losing out on acceptance of reform from these clusters (Islamic Educational, Scientific and Cultural Organization, 1999). Being a conservative Arab nation in general, there will be hindrances in terms of promoting goals such as Gender Equality and Inclusion.

4.4 Monitoring and evaluation complications

Another issue that might arise with ESD reform is a lack of balance between monitoring the process and its outcome (Fink & Stoll, 2005). Moreover, assessment results, if not positive, are usually used unconstructively to pinpoint at others and make them feel responsible for reform failure (Fink & Stoll). Since

Jordan is a developing country, it shares common issues with its counterparts in terms of importance given to examinations – if the reformed curriculum does not yield good results, it may be alleged to be inadequate or unsuccessful (Harris & Graham, 2018).

4.5 High costs

Overall, measuring the success of a reform is a challenging process since it is quite demanding and costly. ESD programs require participatory efforts, and a lot of the content focuses on project-based approaches that will need resources and funding from the community (Harris & Graham). Since Jordan is a developing country and is heavily dependent on international funds to support any type of reform (Jordan's Way to Sustainable Development, 2015), supporting an ESD reform will be a challenge.

5. CONCLUSION

Jordan is a consistent global partner with the UN in working towards the 2030 Agenda for Sustainable Development, despite the challenges that the country faces. However, this cannot be done independently due to limitations that the country faces in terms of socio-economic burdens from an increased refugee influx and draining demands on local services and infrastructure (Jordan: Sustainable Development Knowledge Platform, 2017).

Research and assessment are critical to analyze and make immediate remedies for the success of ESD reform. Teachers, who will be key in delivering the curriculum, need to be given autonomy and adequate training to support the conversion of

the curriculum into real-time pedagogical practice. Students are of equal importance as stakeholders. Their active engagement, feedback, and needs should be considered to ensure that the curriculum not only meets educational standards but also aligns with their learning styles and goals. Finally, there should be availability of adequate resources for students to develop projects and take actions as needed, in order to keep them engaged with the curriculum.

To conclude, integrating Education for Sustainable Development (ESD) into Jordan's textbook materials is crucial for aligning the educational system with the Sustainable Development Goals (SDGs). This integration will help students develop skills that will enable them with sustainable options to deal with challenges that they will evidently face in the future (UNESCO, 2016). Therefore, a clear plan for the integration of ESD into curriculum content is essential. This plan will help distinctly explain why reform is needed, what the new curriculum design will focus on, and how these changes can be made. The absence of a clear vision will affect how this reform is welcomed by stakeholders and policymakers, and will suffer in terms of receiving adequate support (Harris & Graham, 2018), which is what Jordan essentially needs.

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