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## **Access to Sustainability Education in Civics Classes in Lebanon: Teacher Choices and Influential Factors**

### **1 ABSTRACT**

In its Decade of Education for Sustainable Development (DESD) from 2005-2014, the United Nations emphasized the importance of education for achieving sustainable development and positive change. Under sustainability, environmental protection is an essential feature as are social development and economic growth, necessitating equitable access to quality education. Today, with the conclusion of the DESD, the Lebanese National Curriculum has yet to see any significant revisions in the learning and teaching of environmental sustainability. We found that, in the national curriculum, environment-related topics are presented mostly in the civics textbooks. The grade eight civics textbook includes four one-hour lessons on environment. Teachers, however, do not always cover these lessons because they are excluded from the official exams. This, coupled with other shortcomings like outdated textbooks from 2004, a civics program designed primarily to promote social cohesion, and lack of student practice in the exercise of citizenship, highlight the importance of the teacher's role in integrating environmental sustainability in the classroom. We explore the extent to which civics teachers in Lebanon following the Lebanese National Curriculum incorporate environmental sustainability themes in their classes and examine factors that influence related teacher choices. We argue that official exams, ministerial bureaucracies and traditions of didactic learning in Lebanon have limited access to learning about environmental sustainability and prevented the enhancement of a curriculum for sustainable citizenship.

### **2 INTRODUCTION AND PROBLEM DEFINITION**

Through UN Resolution 57/254 adopted in 2002, the United Nations General Assembly proclaimed 2005-2014 as the Decade of Education for Sustainable Development (DESD) with UNESCO designated as the lead agency to draft an "international development scheme" that would serve as a guide for governments, non-governmental organizations and other stakeholders (UN, 2002).

Through this initiative, education for sustainable development would empower individuals and diverse communities in developing approaches to ensure that the planet is able to provide the same resources in the present and the future. The value of Education for Sustainable Development (EfSD) today arises from our social and economic landscape plagued by “unsustainable practices”; helping children deal with these world developments requires new curricula and orientation (UNESCO, 2009). With the current global focus on climate change and industrial and consumer practices that exploit the environment, education as a change agent can serve to promote learning experiences necessary for a new, sustainable model of living. For sustainability, environmental sustainability is fundamental, and is intertwined with social development and economic growth. Indeed, the natural environment is a vulnerable component of society. The natural environment, therefore, requires the “urgent need for thoughtful and articulate individuals...and the education that aspires to facilitate knowledge, skills, and attitudes for environmental issues” (Seatter, 2011, p. 22). Therefore, Education for Environmental Sustainability (EfES) necessitates equitable access to quality education so that all children have an opportunity to develop lifelong practices and attitudes for sustainable living.

Throughout this decade (2005-2014), a number of DESD participating member states have enacted laws or implemented policies to integrate concepts of sustainability and sustainable living within education systems (Buckler, Creech, & UNESCO, 2014). Areas affected by and transitioning out of armed-conflict typically, face challenges at policy and school-based levels to meet minimum standards for living and education (e.g. Quaynor, 2012; Tawil & Harley, 2004) making the pursuit of positive change even more challenging. Lebanon is one particular case where environmental sustainability and education reform for progress and development continues to face shortcomings. For instance, two governorates, Mount Lebanon and Beirut, have exhausted their available landfills for waste disposal leaving mountains of garbage uncollected on the streets for several weeks.

Lebanon’s post-civil war national curriculum is still in effect since its reform in 1997. It highlights throughout its vision of education and learning objectives a value for preserving and protecting the environment. National and civic education, or civics, is a curricular subject that aims to foster an active and democratic form of citizenship among students. Civics is assigned 30 periods per year for each of the 12 grade levels. The nine main aims of the civics curriculum encompass a range of topics including the Lebanese and Arab identities, dialogue and conflict resolution, work ethics, and equality (Table 1). Although these aims do not specifically make reference to the natural environment, the curricular objectives per grade level show a total 32 lessons across grades 1-12 that refer to the natural environment (Appendix A). There exists no evidence, however, on how students are learning about the natural environment in formal schooling in Lebanon. Moreover, the general evidence on learning and teaching (e.g. Akar, 2014; Shuayb, 2007; UNDP, MEHE, & CDR, 2008) suggests that classroom pedagogies, by and large, aim at ensuring students are able to recite information for exams.

In this study, we examine the extent to which the civics classroom supports EfES. Focusing on the civics program in the Lebanese National Curriculum, we explore how four civics teachers from distinct local private schools plan and facilitate learning activities to foster a form of active citizenship for integrating environmental sustainability into their classes and we examine factors that influence their EfES integration choices.

### 3 LITERATURE

In the following sections, first we frame environmental sustainability within the discourse of citizenship. We then present descriptions of education for environmental sustainability (EfES) and identify related challenges. Finally, the Lebanese National Curriculum is discussed with a focus on citizenship (civic) education as the main programme containing lessons on the environment.

#### 3.1 Active Citizenship for Environmental Sustainability (ACES)

The discourse on citizenship studies demonstrates the contentions and complexities in defining an ideal approach to citizenship. Nevertheless, this same discourse perpetuates the notion of citizenship as a relationship between the individual and the community. This relationship, according to Osler and Starkey (2005), comprises three inter-related elements: legal status (or lack thereof), feelings and practice. Isin and Turner (2002) view this relationship within the parameters of rights and responsibilities. Furthermore, the extent to which behaviours of individuals are desirable within contexts of diversity and democratic communities can be examined through a simplistic concept of maximal and minimal notions of citizenship. A maximal notion of citizenship, one that encompasses public values, wider constructs of identities and inclusive activities (McLaughlin, 1992) sets the groundwork for an active form of citizenship. According to Hoskins, Villalba, Van Nijlen, and Barber (2008), active citizenship is an approach where individuals act as agents of change, working within humanistic principles such as equality, non-violence and inclusion. In this study, we examine active citizenship for the natural environment (or ecology), one of the communities that all human beings around the world share a relationship with.

The natural environment has been exploited by humans. Sustainability in this respect implies appropriate use and care of limited natural resources so that they not only remain in abundance for future generations but also support an eco-friendly, better, and healthier quality of life. Education for sustainable development (EfSD) encompasses a maximal notion of sustainability whereby living peacefully, caring for the natural environment and fighting climate change, reducing economic and gender inequality and general improvement of quality of life are part of a new vision for the world which must be achieved through collective and individual commitment on a local and global scale (UNESCO, 2005). When focused on environmental sustainability, this specifically involves taking action towards ecologically sustainable practices, or *green* practices, and fostering green enterprise, schools, and universities (Buckler et al., 2014). In more specific terms this can include recycling, adopting renewable energy, preserving water and land, and fostering consumer and corporate environmental responsibility in daily activities (UNEP, 2011) to reduce our environmental footprint. These practices require an active form of citizenship whereby individuals are empowered to lead and promote sustainable measures.

Fostering a sustainable way of living potentially creates a number of challenges and changes in how we conceptualize ACES. Care in our interaction with the natural environment inherently serves not only the local community but also the international community and would, thus, require a cosmopolitan approach to citizenship and new rights and responsibilities towards an entity beyond the State (Isin & Turner, 2007). Individuals with a strong sense of national citizenship may have close sentiments and give particular attention to natural sites and symbols of heritage (national bird, national plant, mountain, etc.) or be directly affected by local water pollution and ineffective waste disposal. However, rationales and incentives of sustainable living also stretch out to a sense of common good at a universal level. This would require individuals to

expand their sense of identity beyond the national state and value that others beyond their communities will benefit.

### **3.2 Education for Environmental Sustainability (EfES)**

Sustainability is a contemporary problem that touches our lives, the individual and the collective. Citizens must be ready to meet the sustainability challenges of our time. As such, citizenship education cannot remain unchanged within a changing world and cannot be effectively studied in a didactic fashion. According to U.S. Partnership (2008), “When education for a sustainable future becomes the norm, the public will be literate about the sustainability challenges, and have both the skills and the attitudes to participate in solutions” (p.1). In its Decade of Education for Sustainable Development (DESD) from 2005-2014, the United Nations emphasized the importance of education for achieving sustainable development and positive change. The emphasis on the natural environment is paramount in addressing current and future global challenges and necessitates providing children with new and sustainable, practical, and authentic learning experiences within the complex landscape of global sustainability issues, namely climate change and diminishing resources.

Hence, EfES aims to build competencies in people such that they may be proactive in making informed decisions with respect to the environment. In addition to a knowledge base about the environment, the content and pedagogies for sustainable development should “guide and motivate [learners] to seek sustainable livelihoods, participate in a democratic society, and live in a sustainable manner” (Hopkins and Mckeown, 1999, P.28). When focusing on environmental sustainability, school and classroom learning experiences would aim at promoting “sustainable, pro-environmental thinking and action” (Seatter, 2011, p. 24). Approaches to EfES, therefore, require dialogues, participatory and collaborative learning, critical thinking, problem-based learning, and direct engagement with the community (UNESCO, 2014). To that end, EfES is by no means to be didactic in nature.

Citizenship education can therefore play a key role in EfES implying sustainability education considered in terms of the type of citizenship it ideally yields (Seatter, 2011) with positive action as the desired result. This requires students to draw upon an array of competencies, both cognitive and affective. As Stone and Barlow (2009) highlighted, “sustainability Is a Community Practice” and requires affective competencies of the “heart” and “spirit”, as well as “commitments to equity justice, inclusivity, and respect for all people; skills in building, governing, and sustaining communities” (p.6). As citizenship ideally brings together the affective and the cognitive through civic participation requiring a commitment to rights and responsibilities, valuing of local and global identities, and positive social practices and attitudes, indeed, approaches to learning in EfES parallel an education for active citizenship. Such an education specifically fosters a democratic, collaborative and proactive way of living and participating in society. We, therefore, outline indicators of (1) collaboration, (2) dialogue and (3) active participation as approaches to learning to live an active life of citizenry for environmental sustainability. We also argue that these indicators of learning for environmental sustainability are sustainable pedagogies, or approaches that ensure that ongoing development and advancement of collective approaches to sustainable living.

Through collaborative learning, children produce work – individually or with others – that yields a greater diversity of ideas and outcomes (Slavin, Hurley, & Chamberlain, 2003). Consequently, children develop the essential social skills necessary for producing deeper and richer

understandings of knowledge (Johnson & Johnson, 2009). Watkins, Carnell and Lodge (2007) caution not to confuse collaboration with cooperation, which the latter is typically done when members of a group each does a part of a project individually and then merely connect them in a sequence. When working with small groups, activities can have several designs, like pyramids, jigsaws and fishbowls.

Discussion, deliberation, or dialogue forms an essential part of working in groups and its relevance to learning for active citizenship is paramount. It provides the learner with a critical space to engage with the community, develop as an individual, and learn from experience through shared reflections. Dialogue within the group develops awareness and consciousness of the individual (Packham, 2008). Bringing issues and ideas into the conversation paints a picture of one's own reality, aids in developing collective understandings, and allows participative decision making for future action, ideally through critical dialogue.

Active participation in and out of the classroom is another essential pedagogical concept that facilitates learning for active citizenship. Educators must remain cautious, however, because participation perceived as active can indeed be passive and, thus, potentially damaging. Hart (1992) illustrates degrees of participation as a ladder of eight steps. The bottom three – *manipulation, decoration, tokenism* – are the lowest levels of participation. Under manipulation, children receive no information on why they are doing something and how their ideas are being used and participation becomes tokenistic when children communicate with others but the subject was not their idea, nor was the way of communicating it. Moving up the ladders, more active notions of participation inform children of the purposes of the work, how they were selected and choose to participate in the work after it is explained to them. The extent to which children are then consulted, adults use their feedback, children share decisions with adults and children initiate activities increases the authenticity of active participation.

In practice, barriers to EfES pose challenges to implementing sustainable learning experiences. Educators often find it difficult to make room for sustainability with an already loaded curriculum. This often results in any form of sustainability education being considered an “add-on” (Rowe, 2007). If perceived as an add-on, learning experiences may in themselves not be sustainable, as they may not be ongoing, interdisciplinary, or deep enough. In countries such as the USA where curricula and standardized tests focus on writing, reading, and math, with a lack of reflection on socio-economic issues, access to EfS is often impeded (Rowe, 2007). Change is required to provide sufficient support for EfS. For example, Rowe (2007) stated that textbooks should be infused with sustainability issues and how we can address them through different subjects and fields throughout K-12 levels. According to Wakefield (2003), the recommendations of the 2003 Third National Conference on Science, Policy, and the Environment: Education for a Sustainable and Secure Future, held in Washington D.C. call for EfS to be included in curricula at all levels, both in schools and at universities. Sustainability concepts must be incorporated into existing accreditation systems, and schools should adopt sustainable practices. According to Buckler, Creech, and UNESCO (2014), institutionalisation of EfSD along with the alignment of sustainable development with education, still proves to be somewhat elusive. The aforementioned challenges are also part of the educational landscape in Lebanon with a loaded, outdated curriculum, a primary focus on didactic learning for exams, outdated textbooks (Akar, 2014; Shuayb, 2007; UNDP, MEHE, & CDR, 2008), and significantly limited state and educational alignment with sustainable development initiatives such as is common in countries affected by or transitioning out of armed conflict. Without a governing commitment to the natural environment, sustainable

living becomes an action of intrinsic motivation and providing sustainable opportunities for EfES becomes even more challenging.

### 3.3 Citizenship (Civic) Education in the Lebanese National Curriculum

In the Lebanese National Curriculum, environment lessons are presented in the civics curriculum. The national civics curriculum outlines nine overall aims for civic education. The nine main aims of the civics program can be found below (Table 1).

Table 1 Nine Main Aims of National and Civic Education in the Lebanese National Curriculum (Akar, 2007)

1.	To prepare the student morally in harmony with the humanistic values in his [sic] community and country.
2.	To introduce him [sic] to the vocational world and to build in him [sic] a spirit for work and appreciation for workers in different fields.
3.	To prepare the student, in a civil sense, to enable him [sic] to contribute to world development in harmony with the spirit of modernity.
4.	To teach how to critique, debate and to accept the other and to solve conflicts with his [sic] peers through a spirit of peace, justice and equality.
5.	To build a social spirit so that he [sic] feels he [sic] is part of a larger community that is enriched with a diversity of ideas.
6.	To raise the standards of his cultural, social, political and economic contributions and encourage his [sic] free participation in his [sic] civil life.
7.	To promote his [sic] devotion/loyalty to his [sic] Lebanese identity, land and country through a cohesive and unifying democratic framework.
8.	To raise the awareness of his [sic] Arab identity and his [sic] loyalty to it and a sense of Arab belonging to it that is open to the whole world.
9.	To promote the awareness of his [sic] humanity through the close relationships with his [sic] fellow man [sic] regardless of gender, color, religion, language, culture and any other differences.

Despite the autonomy of private schools and their freedoms to provide their own teaching and learning resources, the civics textbook is a standardized text published by the Ministry of Education and Higher Education (MEHE) and is compulsory across all grade levels in the Lebanese program. The textbooks last published in 1997 may be considered as outdated, missing many current themes related to citizenship for sustainability. Environment-related topics, within what may be considered the context of EfES, are presented mostly in the civics textbooks but to a highly limited degree. For example, the grade eight civics textbook includes four one-hour lessons on environment but teachers are not obligated to cover all sections or lessons. In line with the textbooks, the civics curriculum also prescribes a fixed number of periods to be dedicated to teaching about the environment (Appendix A). These periods are covered if the instructor chooses to include them. Instructors, particularly in private schools, may include their own material or other lessons if time allows.

Furthermore, all students in the Lebanese education system sit for two national exams: the Baccalaureate I (Brevet) following year nine; and the Baccalaureate II (Terminale) after year twelve. There is a significant focus on memorizing and direct instructional practices which the MEHE expressed the desire to change from knowledge-based to competency based in the current

curriculum review (MEHE, 2012). However, lack of student practice in the exercise of citizenship favouring transfer of knowledge (UNDP et al., 2008), outdated textbooks from 1997 currently in use, one hour per week only for civics classes, and a civics program of a prescriptive nature, highlight the importance of the teacher's role in providing sustainable and effective learning opportunities when facilitating EfES in the classroom.

## **4 RESEARCH DESIGN AND METHODS**

This qualitative research explores teacher choices and influential factors in providing EfES learning opportunities for students at four private schools. The following sections detail the methodology, instruments, and participants.

### **4.1 Methodology**

Four teachers from four distinct private schools in Lebanon were interviewed. Three interviews took place at the respective schools and one over the phone. All teachers were informed of the study and volunteered to participate and have the interview audio recorded. The recordings were then transcribed from Arabic to English. For accuracy, sections of the English versions were back-translated into Arabic. Verbal consent was obtained from the schools through the teachers who were selected for interviews. Selection of teachers was determined by access and connections to schools. Interviewees were informed that they would remain anonymous, their participation was voluntary and they could withdraw at any time. An overview of the purpose of the study was communicated verbally to the teachers before obtaining their consent. Pseudonyms were used to ensure the anonymity of participants.

### **4.2 Instruments**

The semi-structured interviews included general questions (Appendix B) about the teacher's background, the topics they teach in civics classes, and approaches to teaching environment-related topics (when applicable). Each interview took 45 minutes to one hour.

### **4.3 Participants**

The four teachers interviewed were civics teachers at four distinct private schools. The participants were of different ages with teaching experience ranging from 8 to 35 years. Two of the schools were Catholic schools, small convent schools, and two were laic. Three of the schools were in urban areas and one was in a remote, rural area in the South of Lebanon. All of the teachers interviewed had experience teaching at other schools as well.

## **5 FINDINGS AND DISCUSSION**

In this section the themes extracted from the literature and interviews are discussed. They include: learning activities, concerns, and teacher choices in EfES in the civics classroom, support and barriers in access to learning for EfES, and sustainability of learning for EfES. The teachers are referred to by the pseudonyms Alice, Carla, Nada, and Selim.

### **5.1 Learning Activities, Concerns, and Teacher Choices in EfES in the Civics Classroom**

When asked about lessons on the environment and environmental sustainability, all of the teachers responded by discussing topics related to recycling and pollution with some reference to practical activities such as recycling paper and bottle tops. Alice, Salim, and Carla also mentioned

telling students not to throw garbage out of the car window, and Alice reported a drinking-water conservation activity in the classroom by encouraging students not to fill their bottles to the brim if they weren't going to finish them. This was a personal, informal initiative by the teacher. Teachers' descriptions of learning and teaching environmental issues demonstrated a value and intention to provide children an extra-curricular learning experience. Alice encouraged her students to reflect on practices at home. Although activities of recycling and water conservation appeared to be collaborative and active, the degree of participation, however, could be regarded as "assigned but informed" on Hart's ladder as the students appeared to have had little choice in the activities that were adopted and how they were carried out.

Teachers' belief in the importance of EfES was apparent. Nada had selected the environment as one of the few topics to be covered over the academic year. Carla turned to environmental issues as special topics when covering other lessons like civil society and associations. Nada applied a slightly more advanced approach teaching about nano technology and how it could help decrease pollution. Students watched videos and were asked to research the topic. This particular teacher had integrated nano technology of her own accord. Alice asked students to draw solutions to water conservation issues.

Overall, the teachers interviewed made choices based on what they were able to do on an individual level. Choices depended on what they had time for, what was considered most important in the curriculum and the official exams, and what resources were available. They had to prepare their own resources and materials with little support and often no or little training in the area of EfES. However, Alice teacher reported that despite some effort by the administration to provide support, there are other teachers who refuse to change their approaches.

## **5.2 Support and Barriers in Access to Learning for EfES**

Within the limited timetable perceived by teachers to follow the prescribed curriculum, they do not always cover environment lessons found in the government curriculum and textbooks let alone create their own lessons. One reason cited by teachers is that the topic is excluded from official exams. Regarding the one-hour per week slot for civics, Alice stated that

One hour is not enough for the first semester, that's why I focus on the main subjects that the students need in grade 9, so we omitted the environment chapters and chose topics or basic pillars the students need to learn from grade 7 till grade 9 which they will use and benefit from.

Other topics such as conflict resolution and the constitution are covered in full because they are included in the official exams in grades 9 and 12. Based on this, the need to cover material for official exams has influenced and limited student access to EfES. However, this finding is by no means exclusive to Lebanon; the literature review shows that standards and assessments focusing on traditional key subjects also pose such barriers in developed countries.

Since EfES is not in official exams and environmental studies are partly offered in other subjects such as geography, one interviewee stated that there was a lack incentive to engage in EfES. There should be incentives for teachers and students to engage in ACES and the schools themselves can also serve as models (McMillan and Higgs, 2006). A clean school that for example enforces recycling a variety of materials, promotes water conservation, adopts renewable energy, discourages unnecessary use of paper, and keeps its environment clean can serve as a model for



ACES. Critical dialogue on environmental sustainability, active and ongoing participation by students in related activities, and a sense of real collaboration would go hand in hand with this modelling approach. State and institutional support are paramount in this respect.

Furthermore, didactic traditions of teaching civics do not fit well with an ideal notion of ACES and EfES. The current civics program is prescriptive, with short blocks for each topic rather than integrated themes to provide sustainable learning experiences. Moreover, as it is not mandatory, the time and scope of EfES activities is limited at best. According to the indicators of approaches to learning ACES, namely collaboration, dialogue, and active participation, classroom teaching approaches that are rote and focus on memorizing make it difficult for students to put ACES into practice. Effective classroom practices would foster student participation in the choice of lessons and activities they are presented with as well as critical dialogue and collaboration in authentic situations. Although recycling and water conservation were mentioned as activities in an authentic setting, they lacked adequate support from the school and participating organisations e.g. Salim said recycling was not collected promptly by the participating organisation thus creating logistical and hygiene problems at the school. In addition, none of the teachers had been to workshops or training programmes specifically for EfES which may also have led to limited access for their students.

### **5.3 Sustainability of Learning for EfES**

The individual school teachers interviewed stated that they are left to decide which, if any, environmental sustainability topics to incorporate and to prepare activities from scratch. The civics textbooks provide sections on environment, however the focus is content knowledge such as learning facts about pollution which emerged as a common topic. In this situation, the task of integrating effective EfES that encourages collaboration, dialogue, and active participation then becomes challenging especially since teachers expressed they had received little or no training in EfES. Although Carla and Salim said they had recently attended a seminar on water consumption, efforts in both integration and professional development are often ad-hoc if any.

Collaboration with private organisations for recycling initiatives was taking place in three of the schools, but teachers explained that these often fell through the next year or during the actual process. They lamented that it was difficult to uphold related projects such as paper or bottle cap recycling due lack of continuity because the main instigator is often an individual teacher who may leave or be assigned to a different class. Such ad-hoc approaches may threaten the sustainability of learning experiences as they may not be well-structured, receive adequate resources, and may be dependent upon an individual teacher or collaboration with one NGO. Furthermore, water and energy conservation and pollution reduction through laundry management was discussed by Alice, but this is something the parents would have control of at home and if the parents are not willing to participate, this learning activity may not be well-received.

Indeed, one difficulty mentioned by all of the teachers was the lack of support from some families whereby children go home and engage in non-environmentally friendly practices. For example, Carla expressed that a child in her class had told his father not to throw chewing gum out of the car window and the father responded: "it is none of your business". Salim also said that parents might shout at their children for telling them not to throw garbage out of the car window. Possibly, parents would feel insulted by a critical response from their children. Salim also reported that students do not keep their own classrooms clean and pick up after themselves, "So how can we expect them to care for the environment?". Carla specifically said that sustainability of learning

in EfES is hampered by a lack of practice at home, and when students come back from their summer vacation, they forget the importance of things like recycling because they have not practiced it at home.

## 6 CONCLUSION

With the closure of the DESD, the Lebanese National Curriculum has yet to see any significant revisions in the learning and teaching of environmental sustainability since 1997. A curriculum review is an expectation which provides opportunities for inclusion of subjects or themes related to the world today including EfES. Our changing world necessitates citizenship education that evolves through searching for opportunities and practices to help empower students to take action and find solutions to modern-day problems that affect them within society and pose challenges in both local and global contexts. In this paper, the choices of teachers in integrating environmental sustainability as part of civics classes following the Lebanese National Curriculum were explored. Through interviews of 4 teachers from different private schools, content and activities pertaining to environmental sustainability as well as the factors influencing related teacher choices were discussed. The interviews and the prescribed national curriculum for civics indicate that access to sustainable and effective EfES has been limited, with improvements towards and curriculum for sustainable citizenship proving challenging. These shortcomings appear to be influenced by a focus on preparation for official exams in some grade levels, ministerial bureaucracies and outdated textbooks from 1997 hindering the enhancement of the national curriculum, lack of professional development for teaching sustainability, and traditions of didactic learning calling for rote learning over critical thinking, collaboration, dialogue, and active participation. Although the current educational landscape does not support sustainable learning for EfES, the findings do show that civics teachers value EfES and have made efforts to provide access to related learning opportunities for their students without limiting them to the content of the textbooks. However, more critical approaches to EfES such as deep engagement with problems and solutions related to renewable energy and responsible consumerism in terms of their effects on local communities, the global community, and future generations were not given significant attention. To provide opportunities for effective EfES, teachers could benefit from adequate training to expand their notions of sustainability and how it fits into their daily lives so they can model appropriate behaviours for students and provide ongoing learning experiences aligned with the indicators for EfES – collaboration, dialogue, and active participation.

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## 8 APPENDIX A - NATIONAL CIVICS CURRICULUM – ENVIRONMENT LESSONS

<b>Prescribed Civics Periods on Environment</b>	
<b>Primary &amp; Intermediate Subject Content</b>	
<p><b>Common Life (4 periods)</b>                      Living together                      Shared or common public places: the streets, public squares and gardens...                      Rules of public life: in the street and public places.</p>	<p><b>My country (6 periods)</b>                      Awareness of Lebanon’s nature                      Diversity of nature in Lebanon: beaches, mountains, plains, rivers, forests....                      Nature a hub for child’s daily life and stage for his toys and memories                      National symbols: National Anthem, the Lebanese flag.</p>
<p><b>World of Nature (5 periods)</b>                      Understanding the animal world: the cat, the dog, chicken, sheep...                      How to treat the animal: kindness, being peaceful                      Pet care project at school                      Awareness of the green, plants and beauty of nature.</p>	<p><b>The environment and us (5 periods)</b>                      Environment is part of life: breathing, eating, drinking, and contemplating beauty and the surroundings...                      Environment as part of motion and activity: playing, picnics and work.                      Home, the street, neighborhood and school as part of one environment.                      Protecting the environment is a shared responsibility.</p>
<p><b>Environment and the quality of life and public safety (4 periods)</b>                      The natural environment and its constituents.                      Interaction between man and the environment.                      The built environment: urban, rural and neighborhood planning to the end of a better life.                      The environment and public safety: fire and civil defense departments.</p>	
<b>High School Subject Content</b>	
<p><b>Protection and reproduction of nature (4 periods)</b>                      Protecting environment against pollution and ways to address problems (waste management, air and water distillation, noise reduction..)                      Development of sources of ecology: water, flora and fauna (development instead of exploitation of resources).                      Consequences of depletion of environment: Scarcity of ecological resources. More expensive environment conservation bill.</p>	<p><b>Protection of the Environment and Its Re-production (4 sessions)</b>                      Protection of the environment: pollution factors and ways of treatment (treatment of waste, treatment of water and air, noise pollution reduction, etc.)                      Development of natural resources: water, animals, plants (shifting from using resources to developing them)</p> <p><b>Results of depleting the environment:</b>                      Environmental poverty                      Increase in the environmental bill</p>

## 9 APPENDIX B - INTERVIEW QUESTIONS

The interviews are meant to be semi-structured. These questions serve as a guide for essential information that should be collected. The objective is to see if there is evidence of didactic learning and what affects teacher choices to integrate EfES into civics classes.

### **Introduction:**

Where do you teach? How long have you been teaching civics/social sciences? Which grades do you teach?

### **Time spent on environment**

What topics/chapters/lessons have you covered this year so far?

Probe 1: Any discussions or activities on the environment?

Probe 2: If yes, how much time did you spend on it? What did you do?

Probe 3: If no, did you ever want to but couldn't?

### **On environment in the curriculum**

In civics classes, are there any lessons about environment? How many/how many hours are dedicated to it?

### **Attitude towards topic**

How important do you think the topic of environment is in relation to other topics in the civics course? Why/explain?

### **Planning lessons on environment**

Do you integrate environment-related themes into your civics classes? Examples? Who decided? *If so, is this an individual effort or is it encouraged by the administration?*

### **Activities and lessons**

Have any environment-related projects or activities been carried out at the school or in collaboration with other organisations? Examples? How successful have these projects/activities been? Are they ongoing or how long did they go on for?

### **Professional development activities**

Have you ever participated in professional development activities for teaching environment-related topics? If so, tell me about them. Where was it? Who organized it? What was useful and not useful? Do you think it's important?