

# The FEE – Mars Wrigley Litter Less Campaign

Achieving Global Best Practices in  
Education for Sustainable Development



**LITTER LESS**  
CAMPAIGN

By Olivia Copsey and Paul Pace



Foundation for  
Environmental Education



# **Achieving Global Best Practices in Education for Sustainable Development**

# Credits

## Research and Report

Olivia Copsey and Paul Pace

## Project Coordinator

Malgorzata (Gosia) Luszczek

## Validation

Bernard Combes

Programme Specialist,  
Education for Sustainable Development  
UNESCO



## Design and Layout

Yuwei Wang

**Project funded by:** Mars Wrigley Foundation  
**Copyright © Foundation for Environmental Education, 2022**

ISBN: 978-87-971745-8-6

## Foundation for Environment Education

Scandiagade 13  
Copenhagen, 2450, Denmark  
+45 70 22 24 27  
info@fee.global  
www.fee.global

## Pictures, illustrations and graphics

All pictures, illustrations and graphics used throughout the publication are either part of the FEE Global library or have been provided by FEE member organisations from their own selection as part of the Litter Less Campaign.



# CONTENTS

7	About the Foundation For Environmental Education and Litter Less Campaign
9	Foreword
11	Executive Summary
	Sustainable Development Goals.....14
16	Introduction
	Evaluation Method.....19
22	The LLC – A Transformative Education Approach
	ESD - A Brief Overview.....22
	Methodological Approach.....26
	Key ESD Theories and Principles at Work within the LLC.....33
	A Problem-Based Enquiry.....34
	Local Engagement.....36
	Systems Thinking.....38
	Realisation of Learner Rights.....40
	A Transformative Framework for Action.....42
	A Proposed Model of Transformative Learning for the LLC.....46
48	Conclusions and Implications for Scaling Up
50	References



## Foundation For Environmental Education (FEE)

The Foundation for Environmental Education (FEE) is the world’s largest environmental education organisation, with 100 member organisations in 82 countries. FEE’s educational programmes, Eco-Schools, Learning About Forests and Young Reporters for the Environment, empower young people to create an environmentally conscious world through a solutions-based approach. FEE’s Green Key and Blue Flag programmes are globally recognized for promoting sustainable business practices and the protection of natural resources. With 40 years of impactful experience in ESD, FEE’s Strategic Plan, GAIA 20:30, prioritises climate action across all five programmes to address the urgent threats of climate change, biodiversity loss and environmental pollution.



## Litter Less Campaign

The Litter Less Campaign (LLC) is a joint initiative of the Foundation for Environmental Education and the Mars Wrigley Foundation. The campaign educates students on the issues of litter and waste, engages their communities in awareness-raising activities, and encourages them to make choices that will reduce their environmental impact and conserve resources. The Litter Less Campaign has been implemented through the Eco-Schools (ES) and Young Reporters for the Environment (YRE) programmes since 2011.

## Mars Wrigley Foundation

The Mars Wrigley Foundation partners with organisations around the world to help people and communities flourish. Founded in 1987, the Foundation works to provide oral health education and care, improve lives in mint- and cocoa-growing regions, prevent litter and waste, and create vibrant communities.





## Eco-Schools

Eco-Schools is FEE's largest educational programme. It is a fundamental initiative that encourages young people to engage with their environment by allowing them the opportunity to proactively manage and protect it. Through this programme and the different themes it addresses, young people experience a sense of achievement at being able to have a say in the environmental management policies of their schools and their wider communities. This ultimately steers them towards certification and the prestige that comes with being awarded a Green Flag.



Young Reporters  
for the environment

## Young Reporters for the Environment (YRE)

Young Reporters for the Environment (YRE) empowers young people to take an informed stand on environmental issues they feel strongly about and gives them a platform to articulate these issues through the media of writing, photography and video. The programme offers young people a chance to make their voices heard. The ultimate goal of these Young Reporters is to investigate environmental issues, research solutions, and then report and disseminate this work.



## Foreword

### Bernard Combes

Programme Specialist,  
Education for Sustainable  
Development  
UNESCO



*With a growing world population and limited natural resources, we, as individuals and societies, need to learn to live together sustainably. Trash clogs our oceans, fills our streets and litters huge areas of the planet. We need to take action responsibly based on the understanding that what we do today can have implications on the lives of people and the planet in future. The Litter Less Campaign offers a concrete illustration of responding to this global call for action by inviting students, schools and communities to engage in learning about litter and waste management, to change the way they think and act towards a sustainable future. We need to learn to care – for ourselves, for the others, for the planet. We thus see the campaign as a valuable contribution to the implementation of the Education for Sustainable Development (ESD) for 2030 framework and roadmap, coordinated by UNESCO.*



## Foreword

Anne Vela Wagner  
(she/her)

Executive Director – Mars Wrigley Foundation

*The Mars Wrigley Foundation is proud to have supported millions of students around the world through the Litter Less Campaign as its founding partner in 2011. Providing students an opportunity to learn about the challenges of litter and waste in their community and empowering them to become leaders through the development of meaningful solutions drives sustainable, positive behavior change. It also requires the effort of many to continue to make positive progress in preserving the health of our planet and we recognize the power of collaboration to drive this forward. We appreciate the Litter Less Campaign's evolution over the years and the number of countries and students it has engaged in creating positive transformation in their communities. We thank the students for their leadership and dedication, the national implementing partners for their guidance and partnership, and FEE for steadfast focus on education and impact.*

## Executive Summary



Along with climate change and biodiversity loss, pollution is one of the three major planetary crises of our time. Taking action to address unsustainable levels of consumption, pollution, and waste (SDG 12) is arguably the most urgent of the three, as reversal of both climate change (SDG 13) and biodiversity loss (SDGs 14 & 15) depend upon it. Issues of pollution and waste are also inextricable from issues of environmental justice and human rights, often affecting the most disadvantaged and marginalised societies the worst. However, although waste and pollution are global problems, much of the action needed can be done at a local level. By empowering young people to engage with their communities on issues, such as waste management and environmental pollution, and co-create solutions together which embrace sustainable consumption patterns and the circular economy, a sustainable future can be built on new foundations of collaboration and understanding.



## ABOUT THE MARS WRIGLEY LITTER LESS CAMPAIGN (LLC)

For ten years the FEE - Mars Wrigley Litter Less Campaign (LLC) has engaged over 4 million individuals in 7600 schools from 35 different countries in community-driven action on waste and pollution. This evaluation process has reviewed impacts and actions as diverse as the communities in which they have taken place.

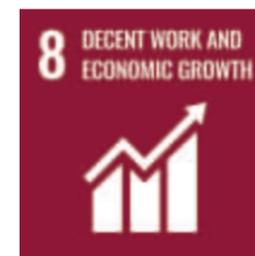


During the next phase of the LLC, FEE is planning to scale up globally through the Eco-Schools and YRE programmes and in partnership with external organisations. To ensure its continued consistency of impact, and guide future communication of its methodology, this report aims to evaluate and underpin the campaign's theoretical praxis according to global Education for Sustainable Development (ESD) best-practices. The report reveals a transformative education paradigm at the heart of the LLC, with progressive layering of ESD approaches which develop a systems-based understanding of the complexities around waste and pollution issues and active engagement of stakeholders in collaborative problem solving and action. Ultimately impacts are strongly linked to the realisation of learner rights, showing potential for increased programme impact within issues of poverty, gender equality and inequality (SDGs 1, 5 & 10).

The layering of learning approaches within the LLC guides a transition from transmissive teacher-led learning towards more participatory and active learner-led education within the schools taking part. This suggests a potential wider role for the campaign within progress toward better quality education (SDG 4) providing further benefit for learners, teachers, and communities alike.



7. Energy is a major theme of Eco-Schools and YRE. Bioenergy from waste is examined in this context.



8. Leadership, teamwork and critical thinking skills combined with a deep knowledge of sustainability empower students for future jobs.



9. The campaign empowers students to identify solutions to waste infrastructure gaps in their schools and communities.

10. The campaign brings students of all backgrounds in all countries together through a common purpose.

15. Biodiversity is a major programme theme including the impact of dumping in sensitive habitats.

16. Ethical matters such as producer responsibility and legal obligations are investigated.

## Sustainable Development Goals (SDGs)



1. The programmes and campaign are inclusive and can be adapted to any social or cultural background.



2. Students are exposed to issues surrounding food production and food waste.



3. A connection is made between the environment and health - specifically links between disease and pollution and waste.



11. Actions on waste management and responsible consumption impact wider communities as students bring ideas out of the classroom.



12. Through the campaign students reflect on consumption habits and identify issues and solutions with regard to resource use.



17. The campaign brings students into contact with local businesses, community and political leaders.



4. The FEE methodology is a powerful tool which fosters a whole institution approach and critical thinking - key to solving litter and waste issues



5. All students regardless of gender are invited to participate in the campaign.



6. Water is one of the main pillars of Eco-Schools where students study the interaction between waste and water quality.



13. The programmes teach climate resilience and awareness raising which interact with issues of waste emissions.



14. Participants deal with ocean plastics and their effect on marine life and the food chain.



The Sustainable Development Goals (SDGs) are a global call to action on the environmental, social and economic progress as well as matters of peace and justice. The 17 goals are interconnected - success in one area can have cascading benefits in others. For instance, students focusing on Marine Litter issues will often be simultaneously engaged with Goal 14 (Life Below Water) and Goal 12 (Responsible Consumption and Production).

## INTRODUCTION

In June 2021 the Foundation for Environmental Education (FEE) General Assembly ratified its GAIA 20:30 strategy, FEE's commitment to addressing the three most urgent environmental threats to the planet over the coming decade – climate change, biodiversity loss, environmental pollution.

All three of these threats are closely linked to unsustainable production and consumption. As global development takes place, material consumption is increasing exponentially in both developing and developed countries (Box 1). A sustainable future relies on the decoupling of progress in economic growth and human well-being from resource use and environmental impact.

### Box 1. The Global Material Footprint

**THE GLOBAL "MATERIAL FOOTPRINT"**  
**INCREASED BY 70%**  
BETWEEN 2000 AND 2017



Source: [sdgs.un.org/goals/goal12](https://sdgs.un.org/goals/goal12)



Under the assertion that education is the basis for achieving this future, the question of how to encourage learners to undertake transformative actions for sustainability is a major preoccupation for educators and policy makers worldwide. However, the complex nature of sustainability problems, multiple pedagogical approaches, and confusion of academic theory within the Education for Sustainable Development (ESD) field means that the route to transformation through education is not always clear.



## Evaluation Method

For 10 years the Litter Less Campaign (LLC), run by the Foundation for Environmental Education (FEE) with the support made by Mars Wrigley Foundation has been working to 'educate students and teachers around the world about the importance of reducing environmental pollution with a focus on litter and thereby affect long-term behaviour change' (FEE 2021). The campaign has involved more than 4 million students in 35 countries in learner-led action against waste, litter, and pollution with often large-scale impacts in schools and their surrounding communities. This evaluation document is peppered with extraordinary stories of change from the LLC from all around the world. The stories, contributed by schools and FEE's global network of National operators, clearly demonstrate the capacity of the LLC to transform attitudes behaviours around waste and pollution which are translating directly into action on local challenges.



As part of GAIA 20:30 FEE plans to further scale-up the LLC to reach more individuals and communities by mainstreaming it throughout the Eco-Schools and YRE programmes and beyond through new external partnerships. The purpose of this report is to elucidate and explain the transformative change processes happening through the LLC methodology linked to key ESD principles. This will underpin the LLC scale-up and ensure that its transformative capacity is retained and further expanded as the campaign spreads.



Eco-Schools Australia LLC Recycled Fashion Show

This report presents the findings of a desk review of LLC materials including 15 themed lesson plans<sup>1</sup>, the mini-LLC competition 2021<sup>2</sup>, LLC stories of change provided by schools and Eco-Schools National Operators<sup>3</sup>, the FEE impact assessment of the Litter Less Campaign Phase III<sup>4</sup> and a recently published MSc study (Vollebregt, 2021). The report also draws from the Eco-Schools seven-step methodology and YRE four steps as these are used as the implementing frameworks for the LLC.

- 1 LLC lesson plans available online at <https://www.ecoschools.global/lesson-plans-for-teachers>
- 2 Mini LLC available at <https://www.yre.global/registration-mini-litter-less-campaign-international-competition>
- 3 Eco-Schools LLC stories of change available online at <https://esllc.exposure.co/> and YRE available at <https://www.yre.global/stories-from-countries>
- 4 LLC impact assessment available at <https://www.yre.global/impact-measurement>



**MARS WRIGLEY**  
Foundation





Following the Introduction, a brief overview of ESD learning approaches is provided and the LLC is located within key theories and approaches. The LLC learning process is illustrated through example 'stories of change' from different countries. The process is summarised and presented alongside a transformative model of ESD excellence. A transformative learning model for the LLC is then proposed which defines the processes by which the campaign contributes to ESD in the areas of pollution and waste management. Finally, links are drawn between the LLC and the SDGs and the proximity of the LLC learning approach to UNESCO's chosen approaches for delivering ESD is illustrated through examples. The final section provides a summary of key findings including implications for the future scaling-up of the LLC.



# The LLC – A Transformative Education Approach

## • ESD - A Brief Overview

Many educators now understand that traditional forms of environmental education and ESD which focus on providing information and raising awareness with the hope of changing attitudes and influencing behaviour (sometimes called a transmissive or behaviourist approach) are too narrow to capture the complex and contextual factors which influence environmental issues. This is partly due to a growing understanding of the multi-causal and multidimensional nature of 'wicked' sustainability problems (Box 2) which include issues of waste and pollution.



Wicked problems often preclude an education process based on a pre-set behavioural solution, as each one is unique and involves different stakeholders, each with different interests. This means there is often less certainty about what the 'right' solution is. Transmissive approaches which focus only on individual behaviours, values and lifestyles also fail to account for the powerful social, cultural, political, and economic processes which influence people's sustainable behaviours.



### Box 2. Wicked problems



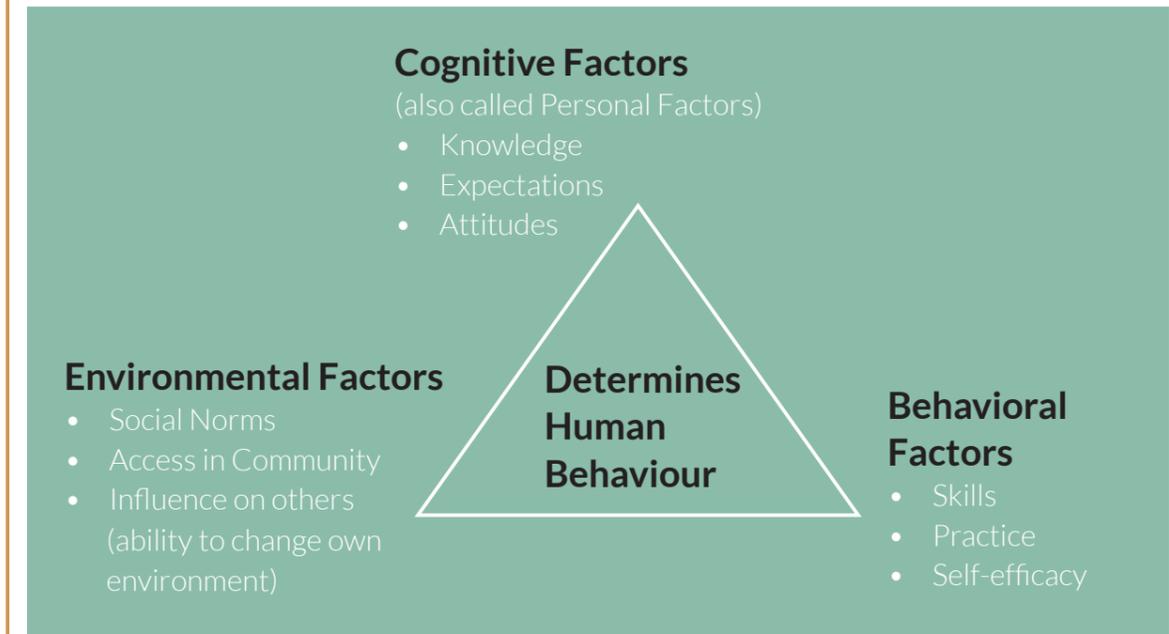
Based upon Rittel and Webber (1973)

Source: [transitiondesignseminarcmu.net/classes-2/mapping-wicked-problems/](http://transitiondesignseminarcmu.net/classes-2/mapping-wicked-problems/)

While building broad and balanced knowledge about sustainable development, global citizenship and other environmental issues is still seen as an important element of ESD programmes, the development of socio-emotional and behavioural competences needed to act on these issues is now equally prioritized. This has informed action-oriented, student-led and collaborative ESD approaches influenced by the emancipatory education theories of Paulo Freire (Freire 1970) and social learning theories of Bandura (Box 3) (Bandura & Walters, 1977), Wals (2010) and Vygotski (Jaramillo, 1996). Within these forms of ‘transformative’ ESD, learners are guided to think critically about their own contexts and reflect on existing assumptions, working in a two-way process of co-learning between learners, teachers, and local actors to explore, interact and co-create solutions to shared environmental challenges.

The transformative view equips individuals ‘to collaborate with others and develop their agency, responsibility, empathy, critical and creative thinking, alongside a full range of social and emotional skills’ (UNESCO 2021, p.47). Thus, transformative learning processes need to engage with all three learning dimensions: cognitive, socio-emotional, and behavioural (Box 4).

### Box 3. Bandura’s Social Learning Theory



Bandura’s Social Learning Theory considers how both environmental and personal factors interact to influence human learning and behaviour.

### Box 4. The three domains of learning

<b>Cognitive learning:</b>	Knowledge, understanding and critical thinking about global, regional, national, and local issues, the interconnectedness and interdependence of different countries and populations, and the social, economic, and environmental aspects of issues.
<b>Socio-emotional learning:</b>	The emotional awareness and social skills that children and young people need to relate to others in positive and respectful ways. This includes the promotion of a sense of belonging to a common humanity, sharing rights, responsibilities, and a common destiny.
<b>Behavioural learning:</b>	The ability to act effectively and responsibly at local, national, and global levels for a peaceful and sustainable world.

## ● Methodological Approach

FEE programmes, including Eco-Schools and YRE, are based on a learner-led and participatory 'bottom-up' educational process which is in line with a transformative education approach.



INVESTIGATE

REPORT



RESEARCH SOLUTION

DISSEMINATE



## Young Reporters for the Environment (YRE)

It aims to empower young people to take an informed stand on environmental issues and gives them a platform to articulate their views through the media of writing, photography, and video. YRE emphasises the need to understand complexities through research and participation of a range of stakeholders in the learning process. Learners are asked to use these different perspectives in the development of proposed solutions to the challenges that they are reporting on.

## Eco-Schools

It engages young people in proactive environmental management in their schools and communities. Through a seven-step methodology, learners create a multi-disciplinary team of peers, teachers and local stakeholders who are guided to co-investigate local challenges, embed learning within the school and develop contextually relevant solutions which improve their environments and communities. Eco-Schools is strongly learner-led and with a focus on empowerment and development of action competencies.





## • LLC Methodological Approach

The Litter Less Campaign has been implemented through the Eco-Schools and Young Reporters for the Environment (YRE) programmes since 2011. Both these programmes guide learners through a step-by-step process and the learning approaches taken are quite varied. This is reflected in the LLC objectives:

- *To raise awareness of the effects of litter and waste on the local environment and wider community.*
- *To increase students' knowledge and practical skills in preventing and managing litter and waste.*
- *To improve students' behaviour in preventing and managing litter and waste.*
- *To collaborate with other schools to disseminate good examples for dealing with littering and waste.*

In both the Eco-Schools and YRE programmes a series of LLC lesson plans are provided covering a broad range of topics related to waste and pollution. Within these lesson plans a high degree of emphasis is placed on environmental knowledge and awareness. All include a 'Before you Begin' document for teachers which provides a synthesis of subject knowledge, for example nitrogen and water cycles, circular economy, plastic pollution etc. These lesson plans propose a learner-centred approach, which includes discussion and group work, that are possible within traditional education formats. For example (Box 5). Contains guidance for a litter pick at school within the LLC Eco-Schools pack. This is an introductory activity to the theme of litter and waste which follows a 'teacher-led' process.

### Box 5. LLC lesson plan Litter pick activity

#### Classroom Session



Introduce students to the difference between litter and waste.



Brainstorm with students and ask them to list different types of waste that they see "littered" around. What could be the reason for littering?

Divide the students into groups and discuss and identify an area within the school or in the immediate neighbourhood where they could do a litter pick.



#### Group Assignment

Divide the students in groups of 3-4 to participate in the litter pick.

30 min should be provided to the students to "litter pick" the identified location.



## • LLC Methodological Approach

However, knowledge-based teaching processes do not preclude the transformative approach if the information used and gathered is viewed critically alongside other forms of knowledge. Both the Eco-Schools and YRE step-by-step frameworks guide learners to involve and engage with their communities to understand the issue from different perspectives. This is particularly strongly demonstrated in steps 1 and 2 of the YRE programme (Box 6).



Later lesson plans, within the Eco-Schools LLC pack, demonstrate a transition from teacher- to learner-led education processes. For example, the LLC Eco-Schools lesson plan 'Classroom session by our incredible caretakers' asks learners to engage school caretakers in a class-based discussion on their experiences of litter (Box 7) and in 'Consumption - Reduce, Reuse & Refuse' learners engage parents and grandparents in a discussion about how single use plastic items were made before.



### Box 6. YRE steps One and Two

#### STEP 1 - INVESTIGATE

Investigate a local environmental issue:



Identify and define a local environmental issue.

- Investigate (look up, compare, interpret, evaluate) relevant information from primary and secondary sources.

Conduct original research, such as surveys/questionnaires, and interview key individuals or groups to obtain first-hand information.

- Cover relevant historical, economic, social and/or political implications and possible consequences of the issue.

- Identify key individuals and groups and find out what their different perspectives on the issue are, their approaches to resolving it, and their assumptions and goals.



- Link the local environmental issue to the bigger global picture.

#### STEP 2 - RESEARCH SOLUTION

Research solutions to a local environmental problem or issue:

Identify possible solutions through experts/stakeholders voices to the environmental issue and evaluate its likely effectiveness, giving reasons for and against (pros and cons).



The solutions presented have to be thoroughly explained, well argued and justified.

### Box 7. Lesson plan 13 - Litter

#### Classroom Session



Plan a session with the caretakers working at the school.

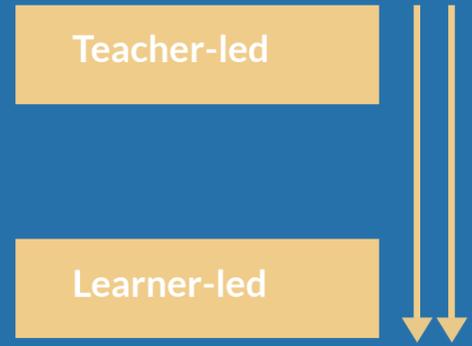
The caretakers can take the students on a round of the school and tell them about their daily work.

Have a discussion once they are back, about the spots they found littered and how they could help the caretakers by reducing littering.

- Ask them to tell the kids about the common products found in the waste bin. Also, discuss what items are littered in the campus.

Remembering that young people are not always intrinsically motivated to address environmental issues such as litter (Vollebregt, 2021), the Eco-Schools and YRE frameworks build holistic knowledge of environmental challenges alongside engagement, ownership, and action-competence of learners.

The journey made in the educational approach from teacher-led to learner-led lessons seen in the campaign materials may even reflect a larger transformation happening within the wider teaching and learning processes of the schools themselves. This might indicate an important wider role for transformative ESD programmes, such as the LLC, in improving the quality of education in schools.



## • Key ESD Theories and Principles at Work within the LLC

FEE uses the theoretical concept of environmental literacy as a basis for the change processes at work within the LLC. However, in the decades following its conception, the term environmental literacy, along with ‘ecological literacy’ and ‘ecoliteracy’, has been widely used and adapted under a broad range of interpretations and uses and therefore carries some confusion.

Although the word ‘literacy’ traditionally has transmissive connotations, in today’s broader understanding and application, literacy has been reconceptualized as a tool for knowledge construction. The NAAEE defines ‘an environmentally literate person as someone who, both individually and together with others, makes informed decisions concerning the environment; is willing to act on these decisions to improve the wellbeing of other individuals, societies, and the global environment; and participates in civic life’ (NAAEE 2011). It therefore aligns much more deeply with a transformative education approach.

The following section forms a deeper analysis of the transformative education process within the LLC and links to key ESD theories and principles. Each section is illustrated by real examples of change from the LLC from around the world.



## ● A Problem-Based Enquiry

The LLC learning process, through both the Eco-Schools and YRE frameworks, begins with an appraisal of local waste and pollution issues and the identification of a specific problem or opportunity that requires investigation. In the YRE, the broad and holistic investigative approach is clearly set out in steps 1 & 2 (Box 6 above). The LLC, through Eco-Schools, involves a collaborative appraisal and prioritisation of key challenges by the Eco-Committee, litter surveys as part of the review, curriculum investigations and community-based interactions which ensure a balanced view of the waste or pollution issue at hand. This learning approach links to an ESD approach called **'Problem-based learning'** which guides learners to consider the social and ecological wellbeing of the places they inhabit, and their own roles and responsibilities within it.

## Problem based Learning - LLC - Eco-Schools Russia

To address the problems associated with the growing environmental impact of religious festivals the kindergarten "Balkysh" in Naberezhnye Chelny, Republic of Tatarstan arranged and hosted a country-wide event "Live, Christmas Tree!". 1717 children, teachers, parents, and grandparents took part in creating beautiful Christmas trees made of waste materials. The exhibition lasted for two weeks. The photos of the most interesting and innovative artworks were sent to other regions of Russia that took part in the event. After the exhibition, children and adults presented the artworks to social partners, local authorities, and various organisations in the city, reflecting their intention to reduce litter, implement recycling and protect biodiversity.



### Classroom Session

### Group Assignment

Initiate a background discussion to set the context for growing commercialisation associated with festivities.



- Divide the students into groups of 3-4 members each. Each group should take a maximum of one week to find out some of the traditional practices which were followed along with the festivities by interactions with elders in their communities.



Lead a discussion with the help of Resource 1 and 2 and also the relevant videos mentioned there.



Guide the students to look at practices which were more sustainable.

### Classroom Session



Facilitate a group discussion in the class to understand the learnings of the different groups will be a helpful exercise and should be followed-up after the group work undertaken by students.

Put their ideas together and arrive at one festival which they wish to observe in their school.

Guide students to develop an action plan for observing a local celebrations of their choice within the school and the plan should include video documentation as a case study.



## ● Local Engagement

Starting with the creation of a multi-stakeholder Eco-Committee in Eco-Schools and the investigation stage in Step Two of YRE, the learners begin a collaborative process of local engagement whereby opportunities are created for teachers, learners, peers, and members of the wider community to learn from each other. These processes build a combination of different forms of scientific, cultural, intergenerational, and indigenous knowledge within learning about a particular waste or pollution issue and correspond with social learning theory (e.g., Wals, 2010; Jaramillo, 1996). They are also the means by which learners contextualize understanding and establish new relationships and partnerships between schools and communities which create viable and imaginative solutions to local pollution challenges.



Panlong Primary School joined hands with the community of Yingxiang, Jinchen Street, Pan Long District, to carry out the event themed “ Waste reduction starts with me –work together to build an international ecology school”. Participating in the paper waste reduction activities were families of various sizes, with little and large hands working together. Parents and children created their own record sheets to track the amount of garbage they produced each day, and then the entire community came together to weigh the total weight of paper garbage produced over the course of a fortnight, with each family striving to become a more environmentally conscious and economically conscious family. Aside from that, the parents and children launched a waste reduction campaign to raise awareness of the issue across the community, resulting in a positive attitude of paper conservation and resource conservation.

### Consumption - Reduce, Reuse & Refuse



This lesson plan focuses on how consumption can be reduced and how things can be reused. Many children are not familiar with the concept of reduce, reuse and recycle. This is because they are unaware of the environmental impact of the things they observe around them and things they buy. Milk in pouches,

use and throw pens, polythene carry bags to bring purchases in, are a part of how they have seen it happening around them.

It can be often a discovery for children when they come to know that this was not the case during their parents’ and grandparents’ time. Plastics, because of their very nature, have over the years become an intrinsic part of life. Students need to understand why people have shifted to consumptive lifestyles which have made them more dependent on ‘use and throw’ products.

## ● Systems Thinking

During the investigation phase of the LLC, particularly when delivered through the YRE programme, learners will review a range of primary and secondary sources to understand the different viewpoints, assumptions and interests involved in the chosen pollution issue. These include scientific information, internet searches as well as interviews with stakeholders. This process corresponds with a **systems-thinking** approach in that it creates a layering effect where different forms of knowledge contribute to a broader understanding of the complexities underlying pollution and waste issues. This is particularly strong in YRE where learners are asked to cover historical, economic, social and/or political implications and possible consequences of the issue under investigation. In Eco-Schools, progression through all steps contributes to a systems-based learning approach as it brings together local consultation and engagement with various stakeholders, and school policies, procedures, and values. Solutions developed through a systems-based approach will have a better chance of success as they will be locally sensitive and relevant, having considered a broad range of information and different perspectives, and understood potential barriers and opportunities for long-term sustainable change.



Young Reporters  
for the environment

## Systems thinking – YRE Malta

Students from SMC Senior Secondary School, Verdala, Cospicua interviewed local people, market vendors, representatives from the city council and two Mayors in Malta to understand issues surrounding plastic waste. The results of this work were shared in a video about plastic pollution which was sent to all local councils.



*"We are students from Verdala school, Cospicua and we came to the street market to interview people or the environment."*



I am a "Consumer"



- Everything that we consume leads to pressure on Earth's resources. Consumption is a result of many factors higher income levels being one of them. Consumerism is defined as a social and economic order and ideology that encourages the acquisition of goods and services in ever-increasing amounts. With the industrial revolution. In the 20th century, mass production and increasing competition has led to overproduction that has led manufactures to plan product obsolescence and advertising to increase consumer spending.
- Each product that we use has an impact on environment. The mining of resources is destroying forests and improper waste disposal during production, transport and after consumption pollutes or air, water and soil. The lesson encourages students to look at their own consumption and reasearch the difference between them and other countries.



## ● Realisation of Learner Rights

As is seen in the example from the Eco-Schools programme in Kenya below, there are many instances when LLC schools go on to achieve community transformation far beyond the scope of what is suggested in the campaign materials. Through participatory problem-based enquiry, local engagement, partnership and advocacy, and a broad systems-based understanding of local waste and pollution issues, the LLC builds empowerment and action competences which enable learners to make change that ultimately enact their own human rights. First and foremost, the LLC links directly to Article No. 24. Of the Convention of the Rights

of the Child, helping learners to realise their right to clean water and a clean and safe environment to live in. It also supports Article No. 12: Respect for children's views; Article 13: Sharing thoughts freely; Article 15: Setting up or joining groups; and Article 29: Goals of education (UN, 1989).



“The students learn that every action counts and that everyone can contribute to save our planet.”

Coordinator of Eco-School in Casvi Boadilla, Spain

### Rights-based approach - LLC, Eco-Schools Kenya

Makini School in Kenya joined the LLC with the neighbouring community to clean the polluted River Kirichwa that runs through the school. The river used to emit a foul smell that even affected teaching and learning in the school. The small children used to complain that the stench from the river was choking them and they could not concentrate in class. The issue was normally worsened during dry spells as solid waste would clog the water flow. This provided an ideal place for mosquitoes to breed which exposed the children to risk of malaria. Now, courtesy of the LLC, the river flows well, the community avoids throwing waste into the river and the bad smell is gone.

### Home Assignment

- Have students draw and write about one way that littering can be prevented or reduced on the site that was cleaned up by the class.



- Encourage students to discuss their ideas with their parents and write down their solution which can be displayed on the Eco-schools noticeboard.

## ● A Transformative Framework for Action



As already shown, the Eco-Schools and YRE step by step frameworks guide a learner-led process which results in transformative action. This process embeds elements of **problem-based learning** in a broad and encompassing appraisal of local issues, engages and involves communities in **social learning** processes, and develops **systems thinking** capabilities which give learners confidence to determine contextually relevant courses of action which improve their own environment, and realise their own **human-rights**.

This process fosters a **whole institution approach** where the needs of learners, staff and the wider community are addressed through all the dimensions of Education for Sustainable Development: learning content, pedagogy and learning environments, learning outcomes and societal transformation.

The transformative learning processes within the LLC matches the typical stages of social transformation proposed by UNESCO<sup>1</sup> : ‘awareness, understanding of complexities, empathy, compassion, and empowerment’ (UNESCO, 2020, p.57). Although, various organisations have proposed several other ESD action frameworks, closer analysis demonstrates that most follow a similar model which broadly corresponds with the four pillars of learning: to know; to be; to live together; and to do. For example, the NAAEE outlines major components of environmental literacy as:

*‘The knowledge and understanding of a wide range of environmental concepts, problems, and issues; a set of cognitive and affective dispositions; a set of cognitive skills and abilities; and the appropriate behavioural strategies to apply such knowledge and understanding in order to make sound and effective decisions in a range of environmental contexts’ (NAAEE, 2011).*

Another popular model is the Earth Charter which aims to help learners:

*‘To understand the challenges and critical choices that humanity faces and appreciate the interconnections between these challenges and choices; to comprehend the meaning of a sustainable way of life and of sustainable development and to create personal goals and values conducive to a sustainable way of living; and, to critically evaluate a given situation and identify action goals for bringing about positive change’ (Earth Charter International, 2009, p.7).*

Table 1 below shows the consistencies between five popular ESD action frameworks alongside the Eco-Schools and YRE programmes of FEE and the learning processes fostered through LLC.



It should be noted that while these frameworks follow a similar structure it is important to note that the stages of change are not necessarily sequential, some can be skipped and returned to later on in the process. The pace at which individuals go through these stages can also vary depending on their learning needs and patterns.

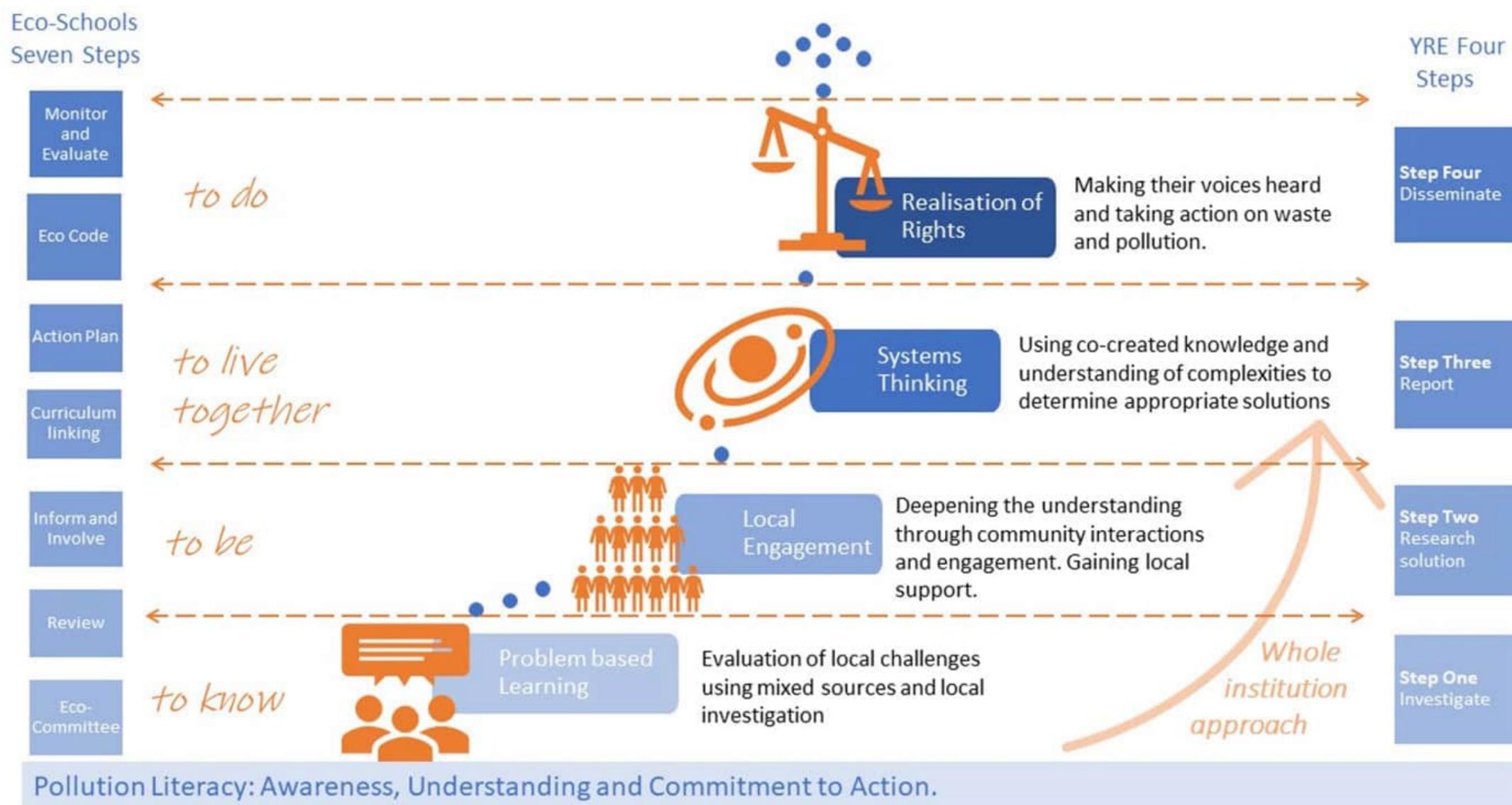
<sup>1</sup> See also <https://en.unesco.org/themes/education-sustainable-development/toolbox>

Four Pillars of Learning	Four Domains of Learning	UNESCO ESD for 2030 Roadmap	Environmental Literacy – NAAEE’s Guidelines for Learning	The Earth Charter	Eco-Schools Seven Steps	Young Reporters for the Environment	The Litter Less Campaign
To Know	<b>Cognitive Domain:</b> Knowledge and thinking skills necessary to better understand the world and its complexities.	<b>Disruption</b> A critical perspective on the need for change.	<b>(1) Affect</b> Motivation to actively participate in environmental improvement and protection according to a sense of morality.	Promoting dialogue on the values and principles for a sustainable way of life.	<b>Eco-Committee</b> A multi-stakeholder group is created to discuss environmental and social issues in the school/community.	<b>Step 1 – Investigate</b> Define a local environmental issue; Investigate; Identify perspectives of key individuals, Cover relevant historical, economic, social and/or political implications; Link to the bigger global picture.	<b>Problem-based Learning</b> Evaluation of local challenges using mixed sources and local investigation.
		<b>Awareness</b> The acquisition of knowledge and information.	<b>(2) Ecological knowledge</b> An ability to communicate and apply major ecological concepts.	Raising awareness and understanding of critical global problems.	<b>Sustainability Audit</b> Issues in the school/ community are investigated.		
		<b>Understanding Complexities</b> Of existing realities.	<b>(3) Socio-political knowledge</b> Awareness of economic, social, political, and ecological interdependence.  <b>(4) Knowledge of environmental issues</b> Understanding of political, educational, and economic influences.		<b>Curriculum Work</b> Curriculum integration: how issues are dealt with in a real-life setting.		
To Be	<b>Socio-emotional Domain:</b> Values, attitudes, and social skills that enable learners to develop affectively, psychosocially, and physically and live together with others respectfully and peacefully.	<b>Empathy</b> A connection to those affected by existing realities.	<b>(5) Cognitive skills</b> The evaluation of issues using both primary and secondary sources and one’s personal values. Abilities for selecting appropriate action strategies and creating, evaluating, and implementing action plans.	Promoting individuals’ ethical development.	<b>Eco Code</b> A statement of commitment to sustainability; code displayed and reviewed on a regular basis.	<b>Step 2 – Research Solution</b> Identify possible solutions and justify the solution from different viewpoints.	<b>Social Learning</b> Deepening the learning through community interactions and engagement. Gaining local support.
		<b>Compassion</b> Relevance to the learners’ own lives.		Encouraging a bio-sensitive outlook.			
To Live Together		<b>Community</b> Solidarity and collective action for transformation and sustainability.	<b>(6) Environmentally responsible behaviours</b> Active participation aimed at problem solving and issues resolution. Personal and interpersonal means to encourage sound practices and legislative initiatives.	Inspiring a spirit of collaboration, cooperation, and action.	<b>Inform and Involve</b> the whole school and the wider community is involved.	<b>Step 3 – Report</b> Identify target audience; Plan and create a report; Suggest a solution through stakeholder voices.	<b>Systems Thinking</b> Using co-created knowledge and understanding to determine appropriate solutions.
To Do	<b>Behavioural Domain:</b> Conduct, performance, practical application, and engagement.	<b>Empowerment</b> Individuals can take decisive actions.	<b>(7) Additional determinants</b> A locus of control and assumption of personal responsibility and ability to bring about change.	Applying values and principles.	<b>Action Plan Monitor and Evaluate</b> Learner-led action, monitoring and continuous improvement.	<b>Step 4 – Disseminate</b> Share (disseminate) your work to a local audience.	<b>Rights-Based learning</b> Making their voices heard and taking action.

● A Proposed Model of Transformative Learning for the LLC



The FEE-Mars Wrigley Litter Less Campaign model of transformative action learning



## Conclusions and Implications for Scaling Up

The transformative success of the LLC lies in the progressive layering of different forms of learning which provide a systems-based understanding along-side new local partnerships and support needed to take relevant actions on issues of waste and pollution. This layering effect happens as part of the Eco-Schools and YRE step-by-step frameworks, supplemented in the early stages by the LLC lesson plans which allow teacher-led introductory engagement and structure before transitioning to learner-led processes of community engagement and realisation of rights. This transition in teaching and learning approaches seen, suggests an important role for transformative ESD programmes, such as the LLC, within progress toward more participatory and engaging learner-led education in the schools themselves. This therefore raises wider questions and possibilities for the application of transformative ESD programmes, such as the LLC, in global progress toward quality education.

To ensure that this layered learning continues during the campaign scale-up, especially within partnerships beyond FEE, a stand-alone step-by-step framework for the LLC which reflects the transformative features of Eco-Schools and YRE would ensure consistency of programme achievements. The added benefit of this new model would be the opportunity to build in processes for ongoing self-evaluation and impact measurement which can be used for continuous programme monitoring.



Social Learning



Waste And Pollution Issues



Monitoring



Global Contribution

A new online platform for the LLC will increase opportunities for social learning on a global scale through sharing of stories and international conversations where schools across the world can compare, collaborate, and replicate successes in solving their own waste and pollution issues. Such platforms can also be designed with features which allow the schools to input and compare self-evaluation and impact measurement data for large-scale monitoring of behaviour change, active citizenship/opinion leadership and knowledge. Future programme monitoring should place more emphasis on qualitative research to monitor the development of soft skills.



The Litter Less Campaign, as it is implemented through YRE and Eco-Schools, takes this synergy between goals a step further.

In the case-studies reviewed for this evaluation, it is clear that the LLC has a strong role in enabling the realisation of learner's rights. This is of course primarily towards enacting their right for a clean and healthy environment. However, there are already clear examples of links to the realisation of other important rights which may help tackle inequalities (SDG10), including poverty (SDG1) and gender equality (SDG5) in waste issues. Disruptive elements within the LLC which confront existing destructive and polluting behaviours are an important part of transformative ESD at work within the campaign and there is no need to shy away from elements of advocacy and even political activism within the programme. This is especially true given the local engagement and systems-thinking used in the forming of balanced opinions and conclusions regarding waste and pollution issues. The role of the LLC in inspiring learners to enact their own human rights should be highlighted as an important aspect of the campaign methodology and enhanced wherever possible in new campaign resources.

In the scaled-up phase of the LLC, schools will no longer receive a budget for activities and projects. However, the review of LLC impact stories does not suggest that the most important impacts of the campaign (e.g., realisation of key rights) would be threatened due to lack of funding for schools. By enhancing the social learning and community engagement aspects of the LLC the schools should be able to access local support for their projects. Building relationships for sourcing of funds and materials is an important ESD problem-solving competency, and often builds creativity and local replicability into sustainability solutions.

## References

Bandura, A., & Walters, R. H. (1977). *Social learning theory* (Vol. 1). Prentice Hall: Englewood cliffs.

Earth Charter International (2009). *A guide for using the Earth Charter in education*. File:///C:/Users/User/AppData/Local/Temp/EC\_Education\_Guide\_new\_format.pdf

FEE (2021). *10<sup>th</sup> Anniversary of the Litter Less Campaign*. Copenhagen.

Friere, P. (1970). *Pedagogy of the oppressed*. Continuum. New York

Jaramillo, J. A. (1996). Vygotsky's sociocultural theory and contributions to the development of constructivist curricula. *Education*, 117(1), 133-141.

North American Association for Environmental Education (NAAEE) (2011). *Developing a framework for assessing environmental literacy: Executive summary*. Washington, USA.  
<https://cdn.naaee.org/sites/default/files/envliteracyexesummary.pdf>

UN (1989). *Convention of the rights of the child*.  
[https://treaties.un.org/doc/Treaties/1990/09/19900902%2003-14%20AM/Ch\\_IV\\_11p.pdf](https://treaties.un.org/doc/Treaties/1990/09/19900902%2003-14%20AM/Ch_IV_11p.pdf)

UNESCO (2017) *Education for Sustainable Development Goals: Learning Objectives*. UNESCO: Paris. <https://unesdoc.unesco.org/ark:/48223/pf0000247444.locale=en>

UNESCO (2021). *Reimagining our futures together: a new social contract for education*. UNESCO: Paris. <https://unesdoc.unesco.org/ark:/48223/pf0000379707.locale=en>

UNESCO (2020). *Education for sustainable development: A roadmap*. <https://unesdoc.unesco.org/ark:/48223/pf0000374802.locale=en>

Vollebregt, M. (2021). *Effectiveness of waste education: A mixed methods analysis of the Litter Less Campaign*. Dissertation for the Master of Science in Industrial Ecology at Delft University of Technology and Leiden University. Delft.

Wals, A. E. (2010). *Message in a bottle: Learning our way out of unsustainability*. Wageningen University, Wageningen UR.

UNESCO (2019). *Teaching and learning transformative engagement*. UNESCO: Paris <https://unesdoc.unesco.org/ark:/48223/pf0000368961.locale=en>



© Foundation for Environmental Education



---

Initiated by: **Foundation for Environmental Education** and **Mars Wrigley Foundation**

**MARS WRIGLEY**  
Foundation