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Exploring a Multi-Country Partnership Through a 'Zero Waste' project

Colette Cotton
2022

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Connecting Classrooms through Global Learning Practitioner Research Fund

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Abbreviations

CPD	Continuing Professional Development
CCGL	Connecting Classrooms through Global Learning
DFID	Department for International Education (UK)
FCDO	Foreign, Commonwealth & Development Office
GL	Global Learning
GLP	Global Learning Programme
ICT	Information and Communication Technology
NGO	Non-governmental organization
SDGs	Sustainable Development Goals
SMSC	Spiritual, moral, social and cultural development
UNESCO	United Nations Educational, Scientific and Cultural Organisation

Abstract

This research was undertaken by teachers and students from 5 countries who were all working together on a Zero Waste project. The schools were in Borneo in Malaysia, Taiwan, the Punjab district of India, Jordan and the Southeast of the UK. It looks at how schools from such diverse areas of the world can work together successfully on a collaborative project and discusses the challenges and benefits of this partnership.

The study aimed to show how working collaboratively with several countries can help to develop pupils' values of empathy and respect and make them aware of their responsibilities as global citizens. This report will give schools and teachers current information about work linked to climate change and the SDGs in the 5 participating countries, all of which fall into areas of the British Council's work.

The data, which was collected through questionnaires and evaluations, showed surprising similarities between the schools. The enthusiasm for this work on Zero Waste and detailed answers from the students and teachers provided interesting information for this paper. The project was conducted during Covid-19, yet despite the many restrictions and home-learning taking place, the results have been very rewarding.

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- To the teacher in Jordan who had most of her pupils working from home and had to send out the questionnaires and get them to return them, with not all students having reliable internet.
- To the teacher from Malaysia, who was working across three schools and trying to gather in the completed questionnaires from students who were working from home part of the time.
- To the 4 teachers from India, who had to send out their questionnaires to the selected pupils as they were home learning due to Covid-19.
- To the UK school, who had their learning disrupted due to Covid-19, with Year 6 coming into school for the last 3 weeks of the academic year.

All challenging scenarios for these teachers and students who nevertheless kindly answered the questionnaires, replied to emails and ensured that the 25 students who participated in this research completed and returned their detailed questionnaires on time.

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Introduction

What is the study about?

This small-scale research project looks at how each partner in a multi-country partnership project experienced the project, the strengths and weaknesses of the partnership, and the impact the partnership has had for all. With this focus in mind, this report looks at the following four questions:

1. How has the multi-country partnership collaborated to support the Zero Waste project?
2. What have been the main benefits and challenges of the collaboration?
3. What has been the impact of the Zero Waste project on each of the partnership schools and communities, and how can it be sustained and evolve?
4. What can other schools learn from this experience?

Why is the study important?

There has been some school-based research on Zero Waste and the UN Sustainable Development Goals (SDGs), but relatively little about schools working collaboratively across several countries. Therefore, this study aimed to provide a base for schools to learn about the advantages and disadvantages of working with multi-country partnerships. It also gives schools current information about work on climate change and the SDGs in the countries participating in this project, all of which fall into areas of the British Council's work.

The research aims to show how working collaboratively with several countries can help to develop pupils' values of empathy and respect and make them aware of their responsibilities as global citizens. It also shows how such partnerships can provide teachers and students with the opportunity to learn and implement in-depth core-skills of creativity and imagination, digital literacy, student leadership and personal development, citizenship, communication and collaboration, critical thinking and problem solving. These skills are valuable for global work in their classrooms and partner schools.

With our increasingly networked world and following the world pandemic which affected every country, it is important for educators and students to understand how they can become global citizens. This study shows how partnerships can help pupils to realize that people across the world have similar concerns about major world problems and a variety of ways of dealing with these, but that by working collaboratively solutions can be found.

The research is also important following the UN Climate Change Conference in Glasgow in 2021, as people across the world are looking at how to reduce their waste and live more sustainably. Zero Waste is linked to SDG 13 on Climate Action and all of the SDGs are topical subjects and major concerns for world leaders and schools.

The partnership and the Zero Waste project

I am a British Council Ambassador and the International co-ordinator at a large, church primary, standalone academy in a deprived coastal town in the Southeast of England. The pupils, nearly equal numbers of boys and girls, are predominately white British with above the average number of disadvantaged pupils.

The school was an Expert Centre in the Global Learning Programme in England (2013-2018), and led the training for nineteen registered schools from Southeast England. It is also part of the Connecting Classrooms through Global Learning programme, delivered by the British Council.

The school has been working continuously on a variety of collaborative projects since 2000 with schools in most continents. It has particularly close ties, mainly through British Council schemes, with France, Germany, Jordan, Sri Lanka, India, Iran, Nepal, Malaysia, Taiwan, Kenya and Nigeria – where our teachers have either visited the schools in those countries or their teachers have visited us. Since Covid 19, we have extended our group of global partnerships virtually to include Tunisia, Moldova, South Africa and Bangladesh.

For this study, in order to give a balanced view of perceptions, five very active schools, all currently our school partners, were selected from different geographical areas of the world, representing a variety of education systems. The schools fell into three groups: pupils from 4-11 years, from 5-19 years and from 12-19 years. The study looked at how these five schools, all from different countries, collaborated and worked together to support and implement the Zero Waste project. These schools already had a history of working globally with one or more partner schools. Additional information on the schools can be found in the Research Methods section.

Structure of the report

The Literature Review looks at some current research publications which are focused on the following three main areas: school partnerships, criticisms and challenges of school partnerships, and the benefits and impacts of school partnerships.

The Research Methods section explains the two methods that were used to explore the research questions and some of the problems that were encountered. It also includes discussion of the sampling, data analysis, and ethical considerations.

The Findings are divided into six main themes. Within each of these, I look at the findings from students and then from teachers. These show the qualitative results from this small-scale study using figures and illustrations for visual explanation and interpretation.

The Conclusions revisit the four research questions for this study and also explore an additional one: 'How can this work be sustained and evolve?'

Literature Review

Before and during this research project, several academic papers were looked at to find out what research had already been done and what, if any, relevant findings had been made, which appertained to this current research work.

A large proportion of the papers were written before 2010 and attitudes and policies have changed since then towards global learning, with the introduction of the United Nations Sustainable Development Goals of 2015-2030 and the focus that is now being given to Climate Action, SDG 13.

I decided to focus on three main areas for this literature review and to look at some of the most relevant articles. Additional academic papers and articles that are not directly referred to here are provided in Further Readings.

What are school partnerships?

A positive view of partnerships is shown in the following educational papers, which support the views that I have found in my own school and from those schools in this research study.

True Education (2021) expresses the view that a partnership involves two or more schools working together either formally or informally in an educational setting. They point out that this can motivate students in their learning outcomes, certainly a point I endorse from working with partner schools.

Having been involved with Connecting Classrooms at my school, I would agree with the British Council's 2021 publication on school partnerships: *Working with students in other schools, encourages collaboration between schools, it motivates pupils and gives them a first-hand experience of other cultures*. Alexander (2015 cited in Bourn et al 2016: 6) further notes *'that a broader, rich curriculum linked to global and sustainability themes, would result in a more meaningful curriculum and could support higher standards'*.

Vicky Gough writing on behalf of the British Council for a government review on global learning states: *'[I]t has never been more important to help our pupils be open to the world and to broaden their horizons. As teachers, educational leaders and parents, it is vital that we allow the values of internationalism to inform our practice. We believe every young person should have intercultural and international experience'* (Gough 2021).

Gough also points out that working with a partner school is motivational for students as well as teachers, as they have a real audience for their work which encourages confidence and self-esteem. This in turn can put lessons and world events into context. In her review she also cites a teacher who writes from the experience of working in a school partnership: *'At our school we have used our international work to add depth and value to our curriculum by embedding it in what we do every day'*.

What are the benefits and impacts of school partnerships?

Evidence from the reviews above suggests that having an international link can play an important and positive role within a school in terms of curriculum development and motivation for learning. What is less clear is how this comes about and how important the school culture and broader ethos is that enables partnerships to take place.

Claire Mackay – a teacher in Scotland and a leader of international learning for Glasgow City Council – has seen the benefits first-hand, and champions a collaborative and outward-looking approach to teaching about sustainability and climate change. Her school is involved in an international school partnership with a school in Palestine, which Mackay says has been transformational. She writes in a 2021 TES article: *'Our children interacting with the students in Palestine has given [climate education] a completely different dimension, and it makes it rich and meaningful to the children'*.

Bourn (2014) comments on the benefits that the GLP programme had on pupils in Key Stages 2 and 3, stating that it is committed to equipping pupils making a positive contribution to a globalized world. He points out that: *'The program supports teachers to help their pupils learn about the challenges our world faces, and to think critically about how to deal with issues such as poverty, inequality and sustainability. It helps pupils make sense of the world in which they live and understand their role within a global society. It puts a primary focus on developing pupils' knowledge and understanding of development and global issues through subject-based learning in key curriculum areas. It also recognizes the important role global learning initiatives can have in encouraging pupils' values and skills development'* (2014: 46).

Several authors' viewpoints linked to global learning are also published in a report by Tide Global Learning. The articles emphasize the need for schools to work out the aims and objectives of a partnership, whilst keeping the curriculum and needs of the learners at the core. Once done, they believe: *'it can enrich the school curriculum and deepen young people's thinking about and understanding of ideas such as commonality and global citizenship'* (Tide Global Learning 2021: 1).

Fran Martin and Lynne Wyndess (2013) discuss the different ways partnerships can start leading to both positive and negative results. They acknowledge that the British Council and other NGOs have plenty of advice for schools, which is not always taken. They look at two cases in their research paper which provide excellent examples of *'how each partnership has collaborated to embed mutual, reciprocal and equitable ways of relating and working'* (2013: 36).

Most schools have heard of Oxfam, so I decided to see if their online article about the benefits of global partnerships was relevant to this research. It had some interesting ideas, highlighting the fact that *'Global Citizenship works for teachers and parents...but above all, it shows young people that they have a voice. The world may be changing fast, but they can make a positive difference – and help build a fairer, safer and more secure world for everyone... help young people build their own understanding of world events'* (Oxfam 2020). It was interesting to see that several of these points have emerged from this research.

Nearly 8,000 schools participated in the UK government-led Global Learning Programme, which ran from 2013-2018. An evaluation of the programme in 2019 showed evidence of similarities between this and the data received from schools in this research project: *'the positive impact that global learning can have on pupils' engagement, knowledge, skills and values. By using global learning to enrich the curriculum, GLP schools discovered that global learning can help to develop critical thinking skills... promote SMSC and foster values such as respect and empathy'* (Global Dimension: 2019).

Claire Shaw's (2021) TES article suggests five ways for schools to have positive global partnerships after Covid-19, which was also a feature in this research. She writes: *'Living through this pandemic...children around the world are experiencing disruptions to their education at the same time. Connections and understanding have never been more important'*.

Although there are many positive outcomes to school partnerships, Standish (2012) in his book *The False Promise of Global Learning* expresses some reservations, which are certainly worth thinking about. He argues that we need to know why we should be including global learning in schools. Is it for economic or political gains? What boundaries should there be, if any? Where is the boundary between education and politics?

What are the criticisms and challenges of school partnership, especially in terms of collaboration?

Doug Bourn, in his 2014 paper 'School Linking and Global Learning', suggests that global learning from the start needs to be based around the curriculum in order for it to be worthwhile. He further suggests that there should be clear expectations of the outcomes.

A paper by Oliver, Cook and Wiseman (2019) in the USA on *'Teachers' first experiences with global projects: emerging collaboration and cultural awareness'* further highlights the need for carefully structured topics for collaboration in order for the partnerships to be academically and culturally valuable.

A suggestion for solving some of the challenges of school partnerships is an article on *School-Partnerships* published by Tide Global Learning (2021). They point out some of the challenges of working with a school in another country or continent - including different curricula and communication - and suggest it might be easier to start with another school in one's own country.

My previous research also shows the need for global learning to be sustainable in schools in England and looks at what *'teachers perceive to be some of the problems that make it difficult for schools to succeed in successfully implementing and sustaining global learning and gives some advice to schools who want to engage with global learning'* (Cotton 2018: 35). This current study therefore also asks participating teachers what their advice is for schools.

Teachers in this study pointed out the benefits of working with other teachers and learning from them, so the report by Hirst (2013) for the British Council on *The Impact of Global School Partnerships* raises some interesting points to be considered in partnerships. He

states that some educators view partnerships with a charitable mentality, while others view it as one of social justice – as part of their school's journey in global learning. His study also notes that *'for some schools, professional development was the most important reason for having a global school partnership. For staff, having some form of overseas exchange experience was seen as having a deep impact and 'life changing'* (Hirst 2013 cited in Bourn 2014: 12).

Lindsay (2016), in her book *The Global Educator*, encourages the use of digital learning across the world and offers a challenge to all educators, which has been partially answered due to Covid-19 and the advancements of hybrid learning in many schools. She wants a more equal world for educators to achieve curriculum objectives and writes: *'This calls for a shift in pedagogy, a shift in mindset, and the integration of digital and online technologies. How do we navigate these new waters of networked learning? What model can be developed for globally connected learning that will support classroom teachers, education leaders and higher education?'* (Lindsay 2016: Review).

Research Methods

'Exploring a multi-country partnership through a Zero Waste project' was a small-scale qualitative study into teachers' and students' perceptions on this subject from schools in Jordan, India, Malaysia, Taiwan and the UK. It looked at how a collaborative global learning project on the topic of Zero Waste was possible and highlights the benefits and challenges of working with several countries on the same project. The following research questions were asked:

1. How has the multi-country partnership collaborated to support the Zero Waste project?
2. What have been the main benefits and challenges of the collaboration?
3. What has been the impact of the Zero Waste project on each of the partnership schools and communities, and how can it be sustained and evolve?
4. What can other schools learn from this experience?

Initially, it was decided that data needed for this research would be collected via questionnaires sent out by email and followed up with Zoom meetings. Zoom meetings however, proved difficult due to time differences when working with Taiwan and Malaysia, so the study focused on the email questionnaires. The global Covid-19 pandemic led to school closures and home learning, which added further complications to data collection. This resulted in the research being extended from the anticipated 9 months to 18 months in order for all the necessary data to be collected.

Sampling

The initial Zero Waste project, linked to the Sustainable Development Goals (SDGs), was started in 2018 between a school in India and the UK as part of the British Council's Connecting Classrooms initiative. At the same time, I had set up a collaborative eTwinning project about Zero Waste, in which 27 schools from 23 countries across the world participated during 2018-2020. eTwinning was launched in 2005 and promotes school



collaboration across Europe through the use of ICT and enables schools to communicate, collaborate and develop projects for free (<https://www.etwinning.net>).

In order to give a balanced view of perceptions, five very active schools were selected from these 23 countries from different geographical areas of the world, representing a variety of education systems and different sizes of schools. The schools for this research were in three groups:

- Pupils 4-11 years
- Pupils 5-19 years
- Pupils 12-19 years

To give a rich balance and breadth for a worthwhile result to this small-scale study, two questionnaires were drawn up, one for teachers and another for the students (see Appendices 1 and 2). At least one teacher and five students from each school were asked to complete the questionnaires.

Data collection methods

The following 2 methods were used in the study:

1. Two sets of questionnaires - one for teachers and one for students - were sent by email and answers were returned by email or WhatsApp.
2. Data from the eTwinning evaluation section of the Zero Waste project was reviewed.

After the approval of this study to go ahead, schools were first contacted by email in April 2020 to find out if they were interested in participating. Due to the unforeseen problems of Covid-19 across the world and the resulting school closures, the responses to the initial email were gathered until July 2020, with the initial five schools all agreeing to participate and their consent forms returned.

Questionnaires for the teachers and students were sent out by email from July 2020 and were all finally completed and returned by email or WhatsApp by January 2021, with those from India, Malaysia and Jordan completed at home due to school closure. The eTwinning Zero Waste project evaluation had been devised by myself and completed by the teachers and students in this research, and so this data was also used to complement the results from the questionnaires.

Data analysis

Completed questionnaires were received from all 25 students, 5 from each country, and from 9 teachers across the 5 countries. With so many questionnaires, I decided to create a table for each of the countries in which to insert each pupils' answers. This was to help me have an easier overall view of the data for the analysis. A similar table was drawn up for the teachers' questionnaires.

Having completed these tables of the students and teachers' questionnaires, it showed that the results were more qualitative than quantitative. In order to enable the qualitative results

to be more visual and easier to read, I decided to use a Word Cloud programme. After several trials I found that www.mentimetre.com was the clearest, as it put the question at the top of the page with the Word Cloud underneath, making it easier for both myself and the reader to interpret the information. These are shown as figures in the Findings, with the main phrases from each Word Cloud highlighted first, then below each figure further illustrative points are provided from the students and teachers.

Initially, I planned to look at each country's results individually, but with so many similar responses from the students, the answers from all 25 students have been analysed together. The same procedure was used for the 9 teachers.

The evaluation questions answered by students and teachers, a requirement at the end of the eTwinning Zero Waste project, were written by myself. Using Padlet (a digital tool offering a single place for a notice board) students and teachers were asked to 'Write a few words about the benefits and shortcomings of the Zero Waste project'. This data is very relevant and especially adds strength to the teachers' views for Question 6 of the Findings, 'What can other schools learn from this experience of a multi-country partnership?'

Further details of the countries, schools, teachers and students that were involved in this research can be seen in Table 1 and 2 below.

Table 1: Participating schools

Teacher	Country	Position	Age group	Type of School	Pupils on roll
1	England	Literacy Lead Teacher	7-11	Government	450
2	England	International Coordinator	4-11	Government	450
1	India	Science Lead Teacher	4-19	Private/Government	5,000
2	India	Class Teacher	10-19	Private/Government	5,000
3	India	Science Teacher	11-19	Private/Government	5,000
4	India	Social Science Teacher	11-19	Private/Government	5,000
1	Jordan	English Teacher	14-19	Government	800
1	Malaysia	Education Advisor Working in 3 schools	8-15	Trust Schools run by Government	300-1,000
1	Taiwan	English & Homeroom Teacher	12-16	Government	1,000

Table 2: Participating pupils in each country

Student	Country	Age
1	England	10
2	England	11
3	England	11
4	England	11
5	England	11
1	India	14
2	India	14
3	India	14
4	India	15
5	India	15
1	Jordan	17
2	Jordan	17
3	Jordan	17
4	Jordan	18
5	Jordan	18
1	Malaysia	8
2	Malaysia	9
3	Malaysia	9
4	Malaysia	12
5	Malaysia	15
1	Taiwan	14
2	Taiwan	15
3	Taiwan	15
4	Taiwan	15
5	Taiwan	15

Limitations

Due to the Covid-19 pandemic, with school closures and home learning replacing schools at some stages, the time scale for this study was extended from 9 to 18 months. The only exception for non-closure of schools was Taiwan. Not every country had the same system in place during Covid-19, so it was a lengthy process to send out and receive data back from pupils and staff.

The teacher in Taiwan also had to translate the questionnaire into Mandarin for her students, as their English was not sufficiently advanced. She then translated their written Mandarin answers back into English.

Ethical considerations

Ethical issues associated with the study were considered carefully in line with British Council guidance. All data collected in this research was anonymous and respondents signed and returned the consent form that had been emailed to them before they were sent the final questionnaires. Having met teachers from each of the participating schools and worked with

them on various projects, they felt comfortable in taking part in this research work. Hopefully they all felt that were able to state their real thoughts on each of the questions.

Schools, teachers and students all agreed to participate in the research project, knew that participation was voluntary and that confidentiality would be guaranteed for both schools, teachers and students. All of the information/ data collected was stored securely.

No sensitive data was collected, and pseudonyms have been used for all schools and participants. Participants were asked to provide the name of their country and the region where their school was situated for the purpose of analysis. Schools are not named, but referred to according to their country location, for example 'a Malaysian school'. Teachers were asked to give their role in the school, but not their name, and in the research are referred to as Teacher 1, 2, etc. Pupils are referred to as Pupil 1, 2, etc. Permission was also given by the schools for the photos used in this report (Appendix 3).

Findings

Findings for the study are organized around the following themes, which were identified through the data analysis:

1. Collaboration between schools on the Zero Waste project
2. Challenges and benefits to collaboration on the project
3. Impact and experiences of engagement in the Zero Waste project in partnership schools and the local community
4. Sustainability and moving forward
5. Learning from the project and partnership
6. What can other schools learn from this experience of a multi-country partnership?

Each section below will look at the findings from the questionnaires and the eTwinning evaluations by the students, followed by the findings from questionnaires and evaluations by the teachers. It will look at the findings in terms of the cumulative response of all the students, followed by some direct responses from the students. Similarly, it will look at the teachers' cumulative responses before highlighting some of the direct responses from the teachers. Word Clouds have also been used to examine the responses. In these, the larger a word appears, the more frequently an exact word or phrase has been used by a respondent, although many of the smaller phrases that are not exactly the same may also link with them.

Collaboration between schools on the Zero Waste project

Students' Viewpoints

Students were asked 'What did you learn by working with students in other countries on the Zero Waste project?'. Figure 1 below shows collaboration as being the most important aspect that they have learnt by working on the same project in a multi-country partnership. The Word Cloud picks out the importance of sharing ideas to try to solve the world problem of waste together. They found it a fun and exciting experience working together on the same goals and exchanging their views on waste.



Figure 1

A 15-year-old from Taiwan wrote: *'Despite everyone living far away from each other and having different nationalities, everyone still fights for the environment on Earth'*, and another said: *'We can see different thoughts from all over the world. It is really amazing & it feels like there's a partner everywhere.'*

A 9-year-old from Malaysia said that it was good to find out *'How other students in other countries recycle'*.

Whilst a 17-year-old Jordanian wrote: *'I learnt how to work with people from different countries'*.

Teachers' Viewpoints

Teachers were asked 'What do you think are the main benefits of working with schools in other countries on this or any other project?'. Figure 2 below highlights some of the teachers' conclusions. Sharing ideas through collaboration is viewed as an important benefit, with distance being no boundary. Pupils are motivated and inspired by learning from others and are open to new ideas making them aware of other countries. It opens rural schools and empowers students to have high standards. It enables the sharing of ideas with other teachers - an important part of partnerships which is often overlooked.



Figure 2

The teacher from Taiwan wrote: *'Working with foreign partners inspired their motivation & learning. Students were excited to see other countries reactions to their work & to view their artwork & videos. It made them feel their voices really mattered.'*

From Malaysia: *'It gives teachers the chance to meet other teachers across the globe and opens rural classrooms to become global; it further boosts the 4C's for teachers & students: critical thinking, collaboration, creativity and communication.'*

The Jordanian teacher: *'Promoting & sharing ideas with students in other countries empowers students to work & make them feel part of the world. Students learn to work with different cultures & see that we are all facing the same problems & like them, can be part of solving these problems.'*

A science teacher from India: *'This is the best part of the project, as we should always be open to listen, accept & adopt the good things done by others. It is a huge advantage to work with overseas schools.'*

Challenges and benefits to collaboration on the project

Students' Viewpoints

Students discussed what they had found most difficult or challenging in this project with other countries. As can be seen from Figure 3 below, having to work in English was the most difficult, followed closely by the problem of convincing others of the need to acknowledge the problem of waste and to engage with recycling.



Figure 3

A Jordanian student wrote: 'How to convince people of the seriousness of this matter, isn't easy'. A student from Taiwan wrote: 'I find English the most challenging. I need more time to draft it out or translate, due to my limited English'.

Some of the benefits gained by students in this project are shown in the question they answered 'To whom and how did you share your work on Zero waste?'. Figure 4 below shows that they were able to talk about Zero Waste with classmates, friends, families and teachers and their local community. They also shared their ideas with other schools through video conferences, emails and by creating artwork and videos. They learnt how to recycle and in India, how to make a vertical green garden.



Figure 4

A 14 year from India wrote: 'I shared everything I'd learnt with my family and encouraged them to engage in the program by recycling & reusing'. Another wrote: 'Sharing our work & ideas though video conferences with students in other countries was really satisfactory...just after the project started, every class had a green & blue bin for recycling. I implemented these ideas at home & shared them with my mum, who is also a teacher who has now implemented them in her school.'

Teachers' Viewpoints

The common theme from all involved when it came to any difficulties appeared to be the time differences for video conferences and different academic school terms. Working in English was deemed more of a problem by the students than the teachers, with time management and the problem of sporadic communication an additional challenge. Minor challenges were the difference of school hours, different expectations and ways of working and the need for greater flexibility. See Figure 5 below.

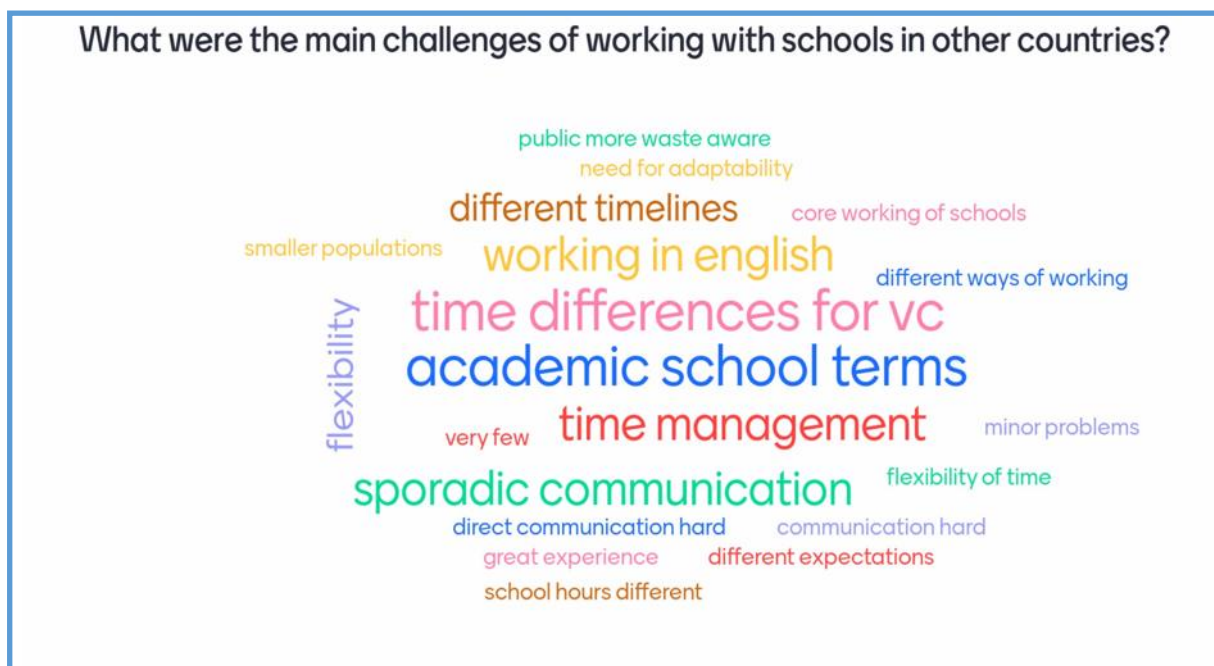


Figure 5

These teachers in particular noted some of the benefits of this collaborative project:

'I have been participating in Global Projects since 2008 as a teacher and saw the impact it had on student learning. Zero Waste was a very relevant and neglected topic in [our community], so Zero Waste was a great opportunity to raise awareness.'

The teacher from Jordan wrote: *'To introduce SDGs to my students in a practical way through PBL (project-based learning), so they can feel they are part of the problem, and they can be part of solution as well, and to build stronger relationship with our partner school in UK by collaboration and communication through real life work, to increase the awareness of waste problem in their local community and on the globe.'*

A UK teacher expressed her views of the benefits of this project: 'Y6 are well able to understand a project such as this, it helps them to open their eyes to issues around the world & it enables them to link these with their own life experiences'.

Impact and experiences of engagement in the Zero Waste project in partnership schools and the local community

Students' Viewpoints

The common theme, looking at Figure 6 below, shows that in all 5 countries, people are more aware of the problem and consequences of waste. Change is slow, but action is starting; in some schools there have been dramatic changes with new school policies, plastic wrapped food is no longer permitted, there are recycling bins in every classroom, less waste and no visible litter. Pupils have learnt how to make compost which is used in the schools' grounds for growing vegetables to sell to parents.

Many families are also now more aware of the problem and are working together to be less wasteful by recycling and using less plastic. In several local communities, streets have less litter and beaches are cleaner and communities are raising awareness of the problem.



Figure 6

Students from Taiwan wrote: 'We can set a good example for our school & community. People in the community can do something good about the environment with us' and 'We could change others by changing ourselves first'.

In Malaysia, an 8 year wrote: *'We have learnt how to make compost and to grow our own fruit and vegetables. We have also learnt how important it is to recycle, we now use old plastic bottles to start growing our seeds in.'*

An 18-year Jordanian student wrote: *'It has increased students' awareness, enthusiasm and desire to do more voluntary work for Zero Waste'* and another *'We have become more careful in our schools and homes of consuming plastic and recognize the need to reduce plastic waste.'*

From the UK: *'We have planted over 400 trees in our school grounds, and we've recycled kilos of crisp packets that are being turned into something useable like plastic garden pots, watering cans & chairs, which supports the Air Sea Rescue.'*

The students also wrote how they had shared their work on Zero Waste. The majority had talked about it with their own family and friends, and several had shared it with their local community and their classmates as well as others in their school community who had not been directly involved with the project. A few students had created posters, made videos and showed their recycled artwork to others.

They also commented on the work they had done online, through video conferences with the 23 countries participating in the eTwinning Zero Waste project. A student from Taiwan wrote: *'We can talk about the environment with foreign partners and tell everyone at home and in our community to recycle is important. I'm happy to join this project!'*

Teachers' Viewpoints

The teachers all highlighted the impact the project has had on their school community and the fact that many local communities are becoming engaged with Zero Waste by encouraging recycling and planting trees. Families are working together, with parents more aware of the problem. Pupils' awareness of the problems of waste have been raised with less plastic being used and pupils sorting waste. See Figure 7 below.



Figure 7

Further thoughts from teachers include these from:

Taiwan: *'This project has had an effect on pupils' daily lives & the local community. They sort garbage & bring own tableware & drinking bottles.'*

India: *'Zero Waste project has brought a remarkable change in our personal, school & wider community lives. People are beginning to understand the need for a healthy & no waste environment.'*

Another Indian teacher wrote: *'This initiative is actually really helpful, not only for the environment, but for people participating in such activities. It helps us be more cooperative as it involves teamwork in a useful way whilst helping nature.'*

Sustainability and moving forward

Students' Viewpoints

This project made students think about waste in their own country, and the unanimous thread in their responses was that waste is a huge problem. They thought that everyone needs to recycle and manage waste in order to take care of our land. They concluded that it is a world problem that needs careful thought and action as resources are limited. They outlined some action which could be taken such as recycling, reusing, efficient use of current resources, picking up litter, composting and growing vegetables and flowers.

A wide range of interesting and mature reasons were given for this, highlighting all of these young people's understanding of this problem and the need for the work to be sustained and to evolve.

A 14-year-old Indian student wrote: *'Being the 2nd most populated country in the world, India faces many problems & waste management is one of the most crucial concerns & needs attention. Open dumping leads to pollution & health hazards with both surface & ground water severely affected by this. Zero Waste management is in the hour of need in India.'*

Another 15-year-old highlights the problems of the volumes of people and illiteracy: *'India has a huge population & many people are still illiterate & don't understand the importance of hygiene & proper waste disposal. Waste management is one of the most important issues in our country which our government is trying to eliminate.'*

A 9-year-old Malaysian student wrote: *'there is lots of rubbish and plastic bottles in our river near the school and not many people recycle.'*

A 15-year-old from Taiwan shows an awareness of the problem nationally: *'The disposal of Nuclear Waste is frequently discussed in Taiwan, as there is no more space to store radioactive waste. People always protest its disposal location, whenever officials plan to dispose.'*

An 18-year-old from Jordan *'Yes, waste is a problem. We are trying in my country to do volunteer work to maintain the cleanliness of public places and reserves. The Crown Prince*

also supports initiatives to encourage young people to clean places and lately several Governmental initiatives encourage people to reduce waste and to recycle.'

In the UK, 11-Year-olds wrote: 'Yes, because there is so much litter on the ground and in the sea, near us', and: 'In my town, we see lots of single use plastic on the ground and plastic bags. Lots of people don't care and just throw their litter down.'

The students talked about the SDGs and their importance, recognizing that they offered solutions to help the environment and for the world and thought that Zero Waste linked to most of the 17 goals.

The 25 students unanimously wanted to continue their work with Zero Waste to ensure that it becomes sustainable and evolves.

Figure 8 below shows some of the main things the students have learnt in this project:



Figure 8

The comments from students show their determination and thoughts on how to ensure that Zero Waste can be sustainable and evolve: 'Actions not words are needed'.

In Jordan a student wrote that she had learnt: 'How to be a friend of the environment and how to take care of my village & protect it from waste.'

UK students wrote: 'We should try to use less electricity to save energy. We should start to make a change now because when we are our parents age, the world won't be as good as it is now if we don't do anything' and 'Perhaps once a month everyone should spend a day helping a town to clean up by collecting rubbish from the beaches and roads.'

From Taiwan: 'We can do a little thing in our daily life to affect our family & friends and let them gradually take action together.'

A Malaysian student noted: 'Writing Poems, creating videos and taking photos to share with others in the community and with other schools across the world about the importance of Zero Waste.'

From India: *'We need to continue to organize awareness of Zero waste campaigns, in schools & in societies. The government has acknowledged it is one of the most important issues to work on in India. We won't stop campaigning until the problem has been solved.'*

Teachers' Viewpoints

The Sustainable Development Goals do not have the same importance in every country. They are not officially taught in any of the participating countries, although the participating teachers knew about them and had started introducing them in their schools, realizing the relevance and importance of the 17 goals and how they linked to Zero Waste. The UK school is the only school to have fully embedded them into their school curriculum, so that they are not an add on, but part of everyday work.

From the teachers' viewpoints, the main impact the project has had is the fact that their own school communities are now engaging with Zero Waste, with both students and teachers concerned and wanting to make changes. Schools have all been able to work with pupils' families and many of their local communities have adopted a positive attitude to the problem and are trying to reduce waste and to improve the environment, by planting trees and setting up recycling points. They have become more knowledgeable about the importance of looking after the environment.

All of these points from the students and the teachers should help the work on Zero Waste to be sustained and to evolve.

Learning from the project and partnership

Students' Viewpoints

Students found the project fun and enjoyed communicating and collaborating with schools in other countries through a variety of ways (see Figure 9). They liked sharing ideas, finding out about recycling and how to create artwork using discarded items. The artwork, singing, making videos and writing stories were all important reasons for them, as enjoyment is an essential part of the learning process. They enjoyed learning about protecting animals and their local environment and sharing ideas towards keeping the world less polluted, whilst learning from and meeting other students.

In all the participating countries of the project, students felt that people were now more aware of the problems caused by waste, even if action is sometimes rather slow. They all said that they had seen big changes in their schools - they were cleaner, there was less

waste, more recycling and even compost being made in some schools, which was used to grow plants and vegetables, with others planting trees.



Figure 9

This project enabled the students to communicate and engage with others through collaboration and as one student wrote, in a 'Harmonious atmosphere'. A student from Taiwan also wrote: 'My favourite part was communicating with students in other countries'.

Teachers' Viewpoints

The fact that pupils were aware that their voice mattered, and their knowledge was valued, was important for the teachers. They recognized the benefits for their students of collaboration and teamwork, including learning how to engage with others in a friendly way, and the simple enjoyment of sharing ideas on a joint project to look after the Earth. Due to digital communication, pupils know that distance is not a barrier to working with others across the world. Despite their being a wide age range between the participating students and language barriers, the project was inclusive. See Figure 10 below.

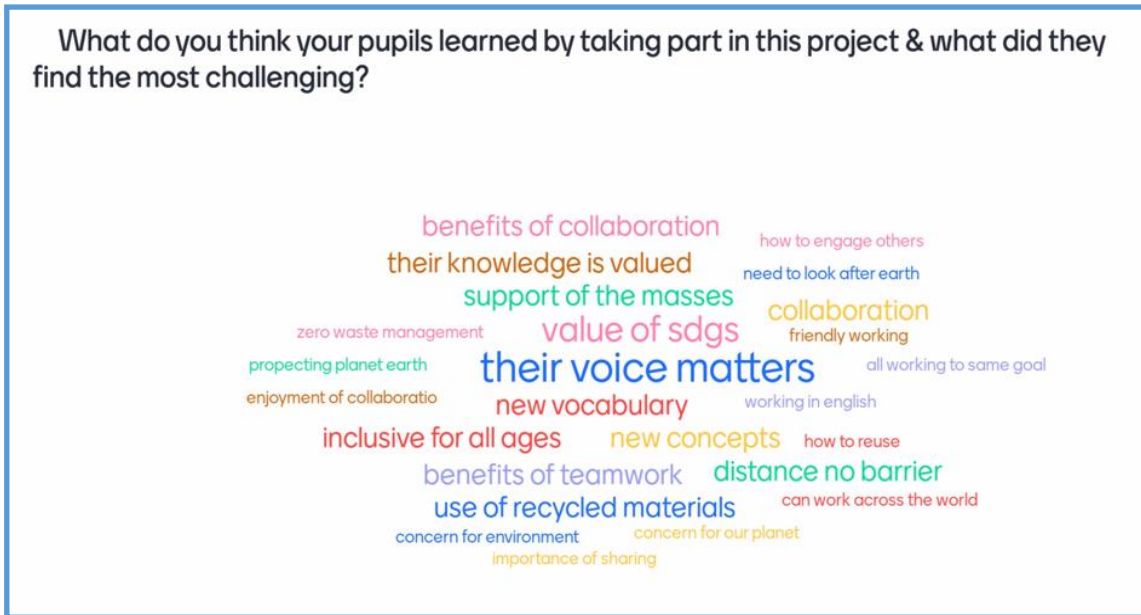


Figure 10

Teachers were also asked what they enjoyed most about this project (see Figure 11 below). They thought that their students' enthusiasm and their innovative ideas were some of the main reasons for their enjoyment of this project. The fact that students were very engaged, the impact it had on their learning through group and teamwork, and the idea of a global extension of the classroom were also valuable. Pupils showed their concern for the Earth and tried to find solutions by holding Zero Waste exhibitions with artwork using recycled materials. This showed the teachers how much they had learnt and made the project very rewarding.



Figure 11

The teacher from Taiwan wrote: *'Their brilliant & creative ideas amazed me' and 'Working with foreign partners inspired their motivation & learning. Students were excited to see other countries reactions to their work & to view their artwork & videos. It made them feel their voices really mattered.'*

The Malaysian education advisor enjoyed *'The impact it had on student learning, community involvement & extending the classroom globally'* adding *'It gives teachers the chance to meet other teachers across the globe. Opens rural classrooms to become global boosts the 4C's of critical thinking, collaboration, creativity and communication, for teachers & students.'*

The teacher in Jordan mentioned: *'Our final product 'Gift to our Planet' a large piece of artwork made from recycled plastic bottle caps' adding 'Promoting & sharing ideas with students in other countries, empowers students to work & make them feel part of the world. Students learn to work with different cultures & see that we are all facing the same problems & like them, can be part of solving these problems.'*

An Indian class teacher noted: *'Innovative ideas suggested by students & initiation of the students to make the project a success'.* And a science teacher added *'This is the best part of the project, as we should always be open to listen, accept & adopt the good things done by others. It is a huge advantage to work with overseas schools.'*

The UK teachers enjoyed the: *'Exhibition about the Beauty of the beach from Reception classes (linked to Zero Waste), the Class competition for the best recycling bins and the Zero Waste Logos for the project.'* They highlighted the fact that the *'Y6 pupils were inspired by work done in other countries, the quality and standard of which, motivated them to do better themselves. They learnt that children in schools across the world were concerned about Zero Waste & Climate Change, as well as other projects.'*

What can other schools learn from this experience of a multi-country partnership?

Sharing ideas through collaboration is viewed as an important benefit, with distance being no boundary. Pupils are motivated and inspired by learning from others and are open to new ideas, making them aware of other countries. It opens rural schools and empowers students to have high standards. It enables the sharing of ideas with other teachers.

Why did these teachers from 5 very different countries want to participate in a collaborative project? Did they find that their expectations were realized? Would other schools have similar reasons for participating in a multi-country project? As can be seen from Figure 12 below, the majority said it was to raise awareness of waste, then to collaborate with others, connect and work with other schools and strengthen links. They said it was a neglected but

relevant project that would engage young students as well as the local community and would ensure a better future for the environment.



Figure 12

A number of key reasons for participation were provided:

Taiwan's evaluation of the project: *'They learnt to create beautiful things with recycled material is very interesting. I'm happy that we can help the Earth with students from other countries. We can talk about environment with foreign partners and tell everyone recycle is important.'*

The teacher in Malaysia's evaluation noted: *'Student Voice Groups, working collaboratively with other countries with meaningful projects to complete and to continue every year. We are excited to connect our indigenous children to the world. Borneo is the only world they know.'*

A Jordanian teacher's evaluation of the project: *'My pupils gained planning skills, team working, active communication skills, they had fun and joy. Their English language improved by writing poems and performed songs by English, they knew other cultures and introduced their culture to others. They became global students. They looked at SDGs and explored their role in them. Their self-estimate and creativity increased.'*

A science teacher from India said: *'This initiative was actually really helpful, not only for the environment, but for people participating in such activities. It helps us be more cooperative as it involves teamwork in a useful way, helping nature.'* Another Indian teacher wrote: *'I think it has been very interesting for my students that people from all over the world are concerned and very worried about it. This project has strengthened our partnerships.'*

A UK teacher stated: *'Y6 classes were fascinated by seeing the work other countries had done. We got so many ideas from students in other countries who were working on this Zero Waste project, it made the work really interesting for our students. Our pupils have learnt that Waste is not just a problem here in the UK but in all the countries we've worked with in*

this project. It has helped our pupils feel positive that we can work together to help solve these problems.'

The 9 teachers from 5 countries in this research decided that working with several countries was motivational, as students were excited and enjoyed the creativity and sharing of ideas with pupils in other cultures. It encouraged the use of the 4C's - creativity, communication, collaboration and critical thinking - and gives pupils a voice. Both staff and pupils made new friends, and were exposed to a range of languages. See Figure 13 below.

Figure 13



Additional ideas from the teachers about the experiences of their schools taking part in this project and what other schools can learn from a multi-country partnership are noted below.

From Taiwan: *'Learning about the SDGs and the world & how to use recycled materials & waste for art, which they loved'* and *'Students were excited to find where partner countries were on Google Map and enjoyed different viewpoints and sharing ideas'*.

From Malaysia: *'That their voice matters'* and *'That it is possible to engage in true & fruitful collaboration'*.

From Jordan: *'Learnt about the SDGs and how to try and solve plastic pollution. A lot of new English vocabulary'* and *'Learning & understanding other cultures and how different countries deal with the same problem'*.

From one teacher in India: *'The advantages of teamwork and working in environmentally friendly ways'*. And from a second teacher: *'schools should work together on global projects as with only a few people in one country it won't make a difference'*.

From the UK: *'That pupils in schools across the world are concerned & worried about Zero Waste.'* and *'How valuable & inspirational it can be working with other schools in different countries. Seeing what other schools have done to tackle Zero Waste'*.

Conclusions

The purpose of this study was to find out the advantages and challenges in engaging in a multi-country partnership project. It looked at how 5 schools, all from different countries, collaborated and worked together to support and implement the Zero Waste project. The schools already had a history of working globally with one or more partner schools. The views of both the 25 students, along with the 9 teachers, were taken into consideration.

The study looked at any difficulties or problems that occurred whilst collaborating with other schools, plus any benefits that were observed and noticed. Wherever possible, it took into consideration the procedures each school has taken to ensure that the project is sustainable in their school and local community as well as their views as to the reasons for schools or communities not achieving Zero Waste. The conclusions are drawn from all those who participated in this research study, through their completed questionnaires and evaluations from the eTwinning Zero Waste project.

The study concludes by looking at the following key questions.

How has the multi-country partnership collaborated and worked together to support the Zero Waste project? Have there been any difficulties or benefits in collaboration?

All of the schools in the study were engaged in global work before the start of this multi-country partnership. Throughout the project they have built on this previous experience to work confidently with others, to provide motivational, impactful learning for their students on the topic of Zero Waste. All the schools created work using recycled material, from artwork with recycled bottle tops to colourful creative fish from recycled cardboard containers, all of which they shared on the eTwinning website. Schools made their own 'Mind-maps', designed a logo about Zero Waste, and held competitions in schools for the best recycling classroom bins. Schools have also collaborated and worked together on the SDGs in a practical way through various internal mini projects, which they then shared with others.

The chief difficulty across the countries seemed to be the problem of communicating regularly. This was mainly due to the schools' differing academic years and term dates. These included academic years finishing in December, April, June and July. Complications due to Covid-19 and school closures was another challenge, plus the problem of time-differences when wanting to hold a videoconference. Communication in English for all of the work was a challenge for some schools, although it had the benefit of improving some pupils' English.

The benefits of working collaboratively are highlighted by all of the teachers (as shown in Figure 2 of the Findings) and include: sharing ideas, solving the same problem, meeting other teachers, students realizing they have a voice, motivation, learning from others with distance not being a boundary. The students had fun and enjoyed this collaborative work

with students in other countries (see Figure 1 in the Findings). As a student from Taiwan wrote: *'We can see different thoughts from all over the world. It is really amazing & it feels like there's a partner everywhere'*.

What has been the experience of the Zero Waste project in each of the partnerships' schools and local community?

There has been a very positive experience across the partnership schools, and in their local communities, to this Zero Waste project. Staff and pupils have developed a more positive attitude to the need for Zero Waste to be achieved. They are developing an understanding as to why this problem has evolved, and a realization that action needs to happen now. Many said that the ethos in their school had changed as they realized they had a responsibility to take action to ensure the pupils and the local community became aware of waste. Parents were becoming engaged as well as the local communities and were recycling, planting trees and becoming more knowledgeable (see Figure 7 in the Findings). The project has raised awareness amongst students, teachers and the wider community on the contribution that waste makes to climate change in local and global environments.

The UK school has planted over 400 saplings in their school grounds and is recycling crisp packets for a regional charity. One teacher thought that although the students are now aware of the problem, however, more needs to be done to inform the local community. Students in India felt that their families and the local community were now recycling more and aware of the problem and becoming less wasteful. Students in Malaysia know it is important to recycle and now use old plastic bottles to start growing seeds.

What has been the impact of the Zero Waste project on each of the partnership schools and can it be sustained and evolve?

The impact the project has had on each partnership school will be looked at first, as viewed by the teachers and students. It will then look at how this work on Zero Waste can be sustained and evolve.

From the teachers' viewpoints, the main impact the project has had is the fact that their own school communities are now engaging with Zero Waste, with both students and teachers concerned and wanting to make changes. Schools have all been able to work with pupils' families and many of their local communities have adopted a positive attitude to the problem and are trying to reduce waste and to improve the environment, by planting trees and setting up recycling points. They have also become more knowledgeable about the importance of looking after the environment (see Figure 7).

The students' viewpoints were very similar. They think that in all participating countries people are now much more aware of the problems caused by waste, even if action is

sometimes rather slow. They all said that they had seen big changes in their schools - they are cleaner, there are recycling bins, there is no visible litter on the ground, there is less waste, more recycling and compost is being made in some schools, which was then being used to grow plants and vegetables. Other schools had also planted trees. In India they had created a green wall of plants made from recycled plastic bottles, compost and the seedlings they had grown (see Appendix 3).

How can this work be sustained and evolve?

The positive feedback from all from teachers and pupils in this project is very encouraging for the sustainability and the evolution of this Zero Waste work. Students have had to think hard about this and the situation in their own countries. As noted in the findings, they have concluded that it is a world problem that needs careful thought and action as the world's resources are limited. All of the participating students think it is important to continue with this work and involve others, even when they have left school. As one younger child wrote: *'We should start to make a change now because when we are our parents age, the world won't be as good as it is now if we don't do anything'*. The comments from students show their determination and thoughts on how to ensure that Zero Waste can be sustainable and evolve.

From the teachers' viewpoints, the main impact the project has had is the fact that their own school communities are now engaging with Zero Waste, with both students and teachers concerned and wanting to make changes. Schools have all been able to work with pupils' families and many of their local communities have adopted a positive attitude to the problem and are trying to reduce waste and to improve the environment, by planting trees and setting up recycling points. As they become more knowledgeable about the importance of looking after the environment, there is a better chance that this work can be sustained and evolve.

All of these points from the students and the teachers should help the work on Zero Waste to be sustained and to evolve with their unified response being: *'Actions not words are needed'*.

What can other schools learn from this experience?

Schools across the world could learn from this multi-country partnership Zero Waste project. The nine teachers in this research study had plenty of positive ideas to give other schools about their experiences of working on a multi-country project (see Figure 13 in the Findings). They and the students found that working with several countries was motivational. Students were excited and enjoyed the creativity and sharing of ideas with pupils in other cultures. It encouraged the use of the 4C's – creativity, communication, collaboration and critical thinking – and gives pupils a voice, as well as self-esteem. This work is beneficial to staff as they meet new educational colleagues and are able to share different viewpoints. Working collaboratively with others gives learning new perspectives. New friends are made for staff as well as pupils, worthwhile partnerships can be set up, with the benefits of opening up a range of new languages and diverse cultures for pupils to encounter.

Perhaps the following from a student in India answers this question best: *'Working with students in other countries I learnt that there is no problem in the world that cannot be solved by cooperation, peace & love. We shared facts, methods & ideas & realized that we students can contribute so much in solving this problem'*.

Final Conclusions

The findings from this small-scale research show the many initiatives and activities that can be gained for schools, students, and teachers, when they engage with a multi-country partnership. The research has taken the views of nine teachers and twenty-five students, five from each of the five schools in Taiwan, Malaysia, Jordan, India and the UK. The findings from this research give a valuable insight into what needs to be done to ensure that the experiences and learning they talk about are embraced and implemented in schools. It also draws attention to some of the problems that schools may encounter and how these can be overcome. It highlights the many benefits that working collaboratively with other countries can bring to schools, teachers and students, and particularly the benefits of exposure to different languages and cultures. It also shows the positive impact this project has had on pupils' learning, how they have learnt to work collaboratively as teams, to learn and share ideas from others in different countries and the realization that by working together they can help bring about Zero Waste. Overall, it highlights the positive impact that the Zero Waste project has had on each of the schools and their local communities. Schools in particular have implemented significant changes in the way they handle waste, with recycling bins being installed, compost being made, plastic recycled and trees planted. This has resulted in cleaner, litter free environments in schools and changing attitudes towards waste. The embedding of the Sustainable Development Goals into many of these schools' curricula, and the support and interest of their local communities, should ensure that this project is sustainable and will evolve.

The views of both the teachers and students also show other schools the many benefits that can be had from this experience. The motivation and excitement the project brought to the students gave them opportunities to share ideas and have a better understanding of other cultures. Working with other teachers from across the world enabled new friendships and invaluable learning to be built. A recent online article (2018) by Rob Ford, Director of Heritage International school in Chisinau, Moldova reinforces many of these ideas:

'In a globalized world the very core of global learning's importance is that it allows us to work out and be proud of who we are in whatever country that is....and link that to how we relate this to the wider globalized world.'

And also: *'it is also crucial that we teach our children to look outward and not to fear diversity and difference, and to challenge inequalities confidently and with authority.'*

These two statements reflect what has happened in these five schools across five different countries during this Zero Waste project, and show the relevance of this approach to partnerships across the world.

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Appendices

Appendix 1: Zero Waste questionnaire for Teachers in participating research countries

School Name

Role

Please answer the following questions as fully as you can about the work you did with pupils on the Zero Waste project with schools across the world

What was the main reason that you decided to participate in the Zero Waste project?

How did you decide which age group or class would work on this project?

What did you enjoy most about the work you did for the Zero Waste project in your school?

Have you participated or taught about other global issues before? If so could you tell me a little about them?

Were you aware of the Sustainable Development Goals before you started this project and are they taught in your school? If so, how are they taught?

Are the SDG's acknowledged as an important issue in your country? If so, do you have any examples/evidence of this?

What do you think were the main benefits of working with schools in other countries on this or any other project?

What were the main challenges of working with schools in other countries?

What do you think your pupils learned by taking part in this project? What do you think they found most challenging?

What impacts do you think the Zero Waste project has had on your school and the wider community?

Would you like to continue working on issues around Zero Waste now that the project has finished? If so, how would you like to do that in the future? (e.g., activities based in the classroom, school, local community, globally collaborative projects etc.)

What can other schools learn from this experience of multi-country partnership, who have worked together on Zero Waste?

Would it have been useful to have had access to some CPD (Continual Professional Development) training? If so in which area?

Did Covid-19 make it difficult to get the research questions completed by your students? Please explain how you managed it.

Appendix 2: Zero Waste questionnaire for students in participating research countries

Age

Please answer the following questions as fully as you can about the work you did on Zero Waste with schools across the world

What did you enjoy most about the Zero Waste project?

What did you learn about the (SDG's) Sustainable Development Goals in the project?

Do you think that Zero Waste is an important part of the SDG's?

Is waste an important issue in your country? How/Why is this?

What did you learn about waste and zero waste through the project?

What did you learn by working with students in other countries on the Zero Waste project?

To whom and how did you share your work on Zero Waste?

What did you find most difficult or challenging?

What impacts do you think the Zero Waste project has had on your school and community?

Would you like to continue working on Zero Waste, now the project has finished?

How would you like to continue the work on Zero Waste (activities, learning in school, etc.)

Appendix 3: Further information on the Zero Waste Project

The initial Zero Waste project (a British Council Connecting Classrooms initiative) enabled teachers from India to visit our school in the UK and vice-versa to fully complement the Zero Waste project.



Joint artwork on Zero waste between India and the UK

A green wall created with recycled bottles and plants grown with own compost in India



Teachers from schools in Malaysia, funded a visit to the researcher's school in the UK in 2018 and the researcher visited and worked in seven schools in Malaysia during Spring 2019, when further work on Zero Waste was covered through STEM and the SDGs.



Work on the Zero Waste project on display in a primary school in Malaysia.

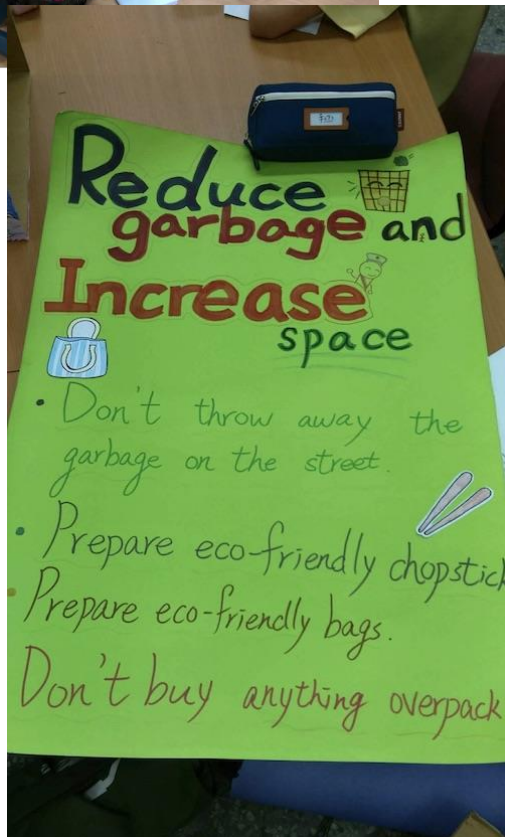
Ginger plants being grown in tyres at a secondary school in Malaysia



A group of teachers from Taiwan attended a British Council training event in London in 2017. Whilst running one of the workshops, the researcher covered aspects of Zero Waste linked to the SDG's. Since then, her school in the UK has participated in several collaborative projects with one of the Taiwanese schools, including this project on Zero Waste,



Recycled plastic turned into Pencil pots and artwork.
Posters created by students in Taiwan



The researcher's school in the UK has been working collaboratively with schools across the world since 2000 on a variety of projects. Every pupil and most teachers were involved with the collaborative Zero Waste project and continue to link their curriculum to the SDGs.



Reception classes letter 'B' made from recycled waste from the beach



Classroom bin for recycling competition and Zero Waste Logo from the UK



The eTwinning project on Zero Waste was set up collaboratively with the teacher from a secondary school in Jordan, who has been working with the researcher's UK school for several years on numerous collaborative projects.



Artwork created from bottle tops in Jordan





About the Author

Colette Cotton has worked in education, mainly as a Primary school teacher, for many years across a wide range of schools. She has always had an interest in encouraging students to work with partner schools across the world. She is currently the International coordinator at a large UK primary school where the SDGs are embedded into the curriculum, enabling pupils to work on collaborative projects with schools across Asia, Africa, the Middle East and Europe. Colette has also been a board member of the European School's Project Association since 2005, and in 2014 worked with schools in 75 countries as the Educational advisor for Barefoot Billion. As an Ambassador for e-Twinning and the British Council, she has been able to support schools worldwide in their use of ICT, encouraging collaborative projects linked to STEM and the SDGs.

About Connecting Classrooms through Global Learning

Connecting Classrooms through Global Learning is a free and flexible programme for schools around the world based on learning, knowledge sharing and international collaboration. Connecting Classrooms supports teachers to equip pupils with the knowledge, skills and attitudes to act more thoughtfully, ethically and responsibly as citizens and contributors to society.

Connecting Classrooms through Global Learning is funded by the British Council and the Foreign, Commonwealth and Development Office (FCDO) and runs from 2018 through to 2022. For more information go to: www.britishcouncil.org/connectingclassrooms

The CCGL Practitioner Research Fund

The CCGL Practitioner Research Fund runs from 2019-2022 with the aim to support educators to conduct research related to global learning and overseas school partnerships within schools. DERC was contracted by British Council to support educators in the research and writing process.

About the Development Education Research Centre

The Development Education Research Centre (DERC) is the UK's leading research centre for development education and global learning. The DERC team conducts research on development education, global learning, and global citizenship education, runs a Masters' degree course, supervises doctoral students and produces a range of reports, academic articles and books. DERC also runs a highly successful free online course Global Education for Teachers which is hosted via Futurelearn. DERC is located in the UCL Institute of Education, the world-leading centre for research and teaching in education and social science.

For further information on the Centre visit: www.ucl.ac.uk/ioe-derc