

# **Global and Environmental Awareness and Responsibility (GEAR) - a Toolkit for Inclusive Environmental Education**



## **Pupils' Attitudes towards Key Project Areas**

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## 1. INTRODUCTION

The effects of environmental issues constitute a global legacy that future generations must contend with regardless of where they live. International community governments have committed to increasing awareness about environmental issues largely through their national educational systems, focusing on sustainability. Such education, however, tends to be limited to the classroom. Only by involving pupils as valid stakeholders in shared environmental issues, through activities that extend beyond classrooms, can we truly lay the foundations for a sustainable future. Pupils have a fertile mind, eager to learn and grasp complex issues. Using pupils as stakeholders also enhances the citizenship duties among the parents. Thus, it is an exercise that leads to several positive results – preparing the future generation for environmental issues, motivating adults (parents) to be proactive, educating adults indirectly, if parents are not well educated. Positive actions, directions and decisions from children are motivating for the parents.

Developing partnerships between schools across Europe widens the scope of global awareness and responsibility. Transnational exchange of experiences is essential to develop pupils' experience beyond their local environment, leading to a broader worldview and increased tolerance of the situation of others. To cultivate a sense of empathy and social justice, pupils need to be aware of the situation of peers elsewhere.

The 2-year GEAR project sought ways to increase the voice and agency of pupils in environmental matters by developing methodologies that, using existing environmental education as a point of departure, involved pupils more actively in their local environment. The aim was to bring schools together, under the umbrella of environmental responsibility, to devise collective tools to break out of the classroom.

- (1) Bottom-up Pedagogical Approaches to actively engage pupils
- (2) Basic Skills and Competences are a means to an end rather than the end itself
- (3) ICT skills central to activities and dissemination
- (4) Local Communities of Practice to connect pupils with their environments
- (5) Nature Discourses: vocabulary and concepts to understand the environment
- (6) A Transnational Community of Practice: shared experiences and values internationally
- (7) Discussions with environmental experts from local universities and research organizations during excursions



The purpose of the GEAR project was to develop joint methodologies as tools to increase awareness of environmental issues and instil a sense of responsibility through participation. Involvement promotes responsibility, and developing bottom-up approaches to education is a novel approach that can lead to new innovations and increases the agency and voice of the pupils on matters concerning the environment. The project unfolded around a 4-element framework (Wind, Water, Earth, Sun). Activities were geared for pupils at each school, covering a collective age range of 2–15 years (pre-primary to secondary). They were designed to promote interdisciplinary co-operation diversely in science, ICT, technology, arts and maths (STEAM) fields, and were approached in different ways by each partner, based on their pedagogical strengths. Pupils were to develop a personal connection with the environment, increase their nature discourses, and feel more empowered in environmental matters. Each school developed a community of practice; a social system concerned with the social nature of learning and involving our common undertaking, leading to identification with the community. The transnational aspect extends this, whereby, pupils and teachers created and became part of a transnational community of practice that shares responsible environmental awareness and values that cross borders.

The greatest expected impact was on the pupils. Within the framework of the project, they gained knowledge about environmental issues and how they can have a part in seeking solutions to problems and how their own actions have an impact, not only locally, but also globally. Climate change is the most serious environmental problem faced by the world today. Today's society is fragmented and divided in so many ways, yet we are united in matters concerning climate change. Everyone has a stake regardless of gender, nationality, religion, or other social grouping. On March the 15th, 2019, young people around the globe took to the streets to strike and protest under the FridaysForFuture initiative. While this is a great thing, it is important that young people have a clear understanding of what they are protesting about and how to continue. Enhancing environmental awareness is crucial. It is important that younger members of society are also made aware, so they can participate take that further through the correct democratic channels. The pupils should be active in choosing and working with environmental topics so that they feel more invested in the environment. Moreover, they should gain a broader understanding that environmental issues impact different places in various ways. A wider understanding should lead to more tolerance of other people's situations as affected by phenomena such as climate change. The GEAR project was an attempt to provide the first steps in this direction.

## The Individual Level

- (1) Exploring children's existing awareness of environmental issues

- (2) Making abstract concepts concrete
- (3) The earlier the better
- (4) Giving children voice / hearing their ideas about their world
- (5) Involving young minds in science (especially girls)

#### The Local Level

- (1) Facilitating important connections with Nature and own environment at an early age through activities and field trips
- (2) A connection with Nature is one element of a so-called ‘Good Life’, so a greater feeling of belonging (I am part of my community)
- (3) Nature Discourses – having the language to describe, discuss, and understand the environment and environmental concepts
- (4) Making Nature Discourse relevant also in urban contexts
- (5) Developing shared values and ideologies to form a community of practice (school)
- (6) Involvement fosters awareness and develops responsibility

#### The National Level

- (1) Adding an often-missing, hands-on element to the national curriculum of partner countries
- (2) Raising awareness and responsibility

#### The Transnational Level

- (1) The shared responsibility for our Earth unites us (I am part of a bigger community)
- (2) Crossing borders makes this concrete and offers a broader worldview
- (3) Global communities of practice – sharing our values and ideologies at a transnational level

The countries of the 6 project partner schools extend from the north of Europe to the south, representing a range of different climates and contexts (urban/rural):

- (1) Rajala School, public primary, Finland (Co-ordinating Partner)
- (2) GBS De Kreke, primary, Belgium
- (3) Private School Themistoklis, S.A., primary and secondary, Greece
- (4) Istituto Comprensivo Pablo Neruda, public nursery, primary, and secondary, Italy
- (5) Goizeko Izarra Ikastola, primary, Basque Country, Spain
- (6) Dumlupinar Ortaokulu, public secondary, Turkey

## **2. THE STUDY DESIGN AND METHODS**

### **2.1 OVERVIEW**

The survey research involved a cross-sectional survey design for which a 5-item survey instrument, with attitudinal variables as Likert Scales was devised for use with pupils aged 10 to 12 years in each of the partner countries. The attitudes and beliefs concerning the key project areas are (1) Relationship with own local environment; (2) What Nature means to you; (3) Environmental Issues; (4) Nature Discourses; (5) Transnational Community of Practice were investigated. Here, attitude is understood as a social agent's "general feeling of favourableness or unfavourableness for a particular concept" (Ajzen & Fishbein 1980, p. 54, Jalkanen 2017).

As agreed with the partners, the Finnish version of the questionnaire also comprised two qualitative components. The pupils were asked to list the five most important words that described how they felt about their local environment and to mark if the word was positive or negative. They were also asked to list the five most important words that described how they felt about Nature and the environment, and to mark if the word was positive or negative. The Finnish group had these extra components because the researchers were able to work in Finnish, but not in the other partner languages and, generally, the pupils did not have enough skills in English to warrant administering the questionnaire in English. The function of these components is, at a later point, to ascertain the salient beliefs of the Finnish pupils concerning what their local environment as well as Nature and the environment mean to them personally. Since salient beliefs are the ones uppermost in the mind of the person, here they are held as being a form of axiomatic belief. The function of this data is to provide more detailed information on one group that might later be used to better understanding of the statistical data of that group.

The ontology of this study is based on subtle realism, in which meaning is derived from and given to an existing external reality through the social interaction of a group and the particular collective interpretations group members arrive upon, based on their perceptions of specific phenomena (Jalkanen 2017). The epistemology of the study is constructivist, in that the pupils in each country construct their attitudes towards the key project areas based on beliefs representative of their own contexts. Knowledge is constructed socially, so it is what the group knows rather than what an individual knows.

## 2.2 COUNTRIES AND SCHOOLS PARTICIPATING IN THE STUDY

Five schools from all around Europe participated in the study. They are representative of both rural and urban areas and the geographical area spanned comprises both northern and southern Europe.

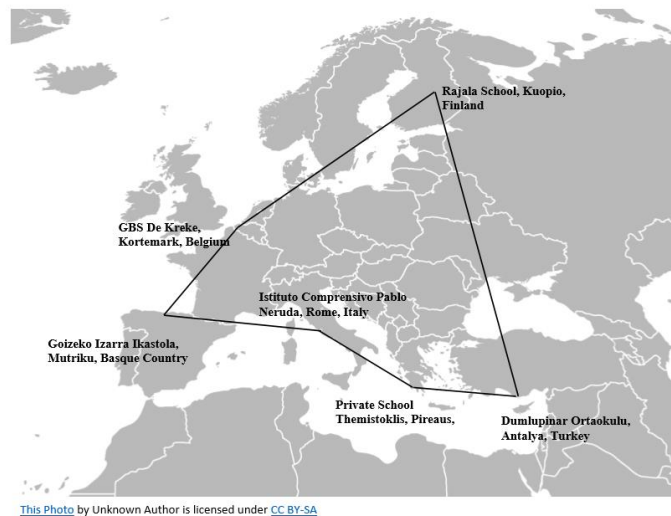


Figure 2.1. The location of schools in the project

### 2.2.1. BELGIUM, GBS DE KREKE

GBS de Kreke is a school situated in a small village in Western Flanders, Belgium. The school was founded in 1959 and at that time, was an example of school buildings in Flanders. The village was completely bombed and destroyed during the second war. So, for the environment it was empowering to have this school. Initially, it was a school for boys only, but by the 1980s it had become a school for boys and girls.

### 2.2.2 FINLAND, RAJALA SCHOOL

Rajala School is a public Finnish primary school for grades 1–6 (ages 7 to 13 years). The school was inaugurated in 1971. The school aims to offer a positive milieu for growth, consisting of respect for others, honesty, good manners, responsibility for one's own work, strong self-esteem, active interaction, and the desire to learn. It also aims to provide pupils with a versatile basic education, comprising skills in interaction and the acquisition of knowledge, as well as the ability to work independently. The school offers three streams of education: regular mainstream education in Finnish; a bilingual stream in which pupils learn through the medium of English and Finnish; music classes of special emphasis.

### **2.2.3 GREECE, PRIVATE SCHOOL THEMESTOKLIS S.A.**

"Educational Organisation Themistoklis S.A." is a private primary school situated in Piraeus, the main port of Greece near Athens. It has students from other countries with different cultures. The motto of the school is "Culture - Education - Virtue". In the frame of its work, the school is active in programmes about theatre, arts, and environmental protection. The aim of the organisation is to communicate with children, to teach them the moral, to help them to be interested in future searches, to become active citizens.

### **2.2.4 ITALY, ISTITUTO COMPRENSIVO PABLO NERUDA**

This school is a public school situated in the northern suburb of Rome. The school is an important public centre of social aggregation and cultural growth for the pupils and for their families. It combines nursery, primary, and secondary levels. In the same area, promoting the training of students between 3 and 14, thanks to the synergistic cooperation of the teachers at each level. The settlement, which arose spontaneously from the late 60s, is experiencing an urban redevelopment with the continuous increase of modern living areas. The wide availability of housing, with varied characteristics, has drawn people with very different socio-economic and cultural conditions, which highlights different inclusion needs and education. Next to families with high expectations of social and cultural promotion, there are also very difficult situations, with a weak educational intervention capacity. There are 45 primary classes and 22 secondary ones, with a total of around 1600 pupils.

### **2.2.5 SPAIN (BASQUE COUNTRY) GOIZEKO IZARRA IKASTOLA**

Goizeko Izarra Ikastola is a public school located in Mutriku, in the district of Gipuzkoa. The school has 307 students from different countries, Senegal, Morocco, Bangladesh, Bulgaria, Ireland and Pakistan. It has a staff of 31 teachers. The school began as an initiative created from the town and the people to promote Basque language and Basque culture 50 years ago. Nowadays, following the same principles, it aims to develop competing students that will form a future society. The school offers a range of infants and primary education services and offers a wide range of services. It is a participatory centre in which parents directly and effectively participate in school activities and decisions.

### **2.2.6 TURKEY, DUMLUPINAR ORTAOKULU**

Dumlupinar Secondary School is located at the centre of Antalya and has a historical building. There are 239 students aged 11-14 years. There are 16 teachers, a vice-principal and a principal. The school offers a variety of school subjects like Turkish, English, Science, Social Science, Maths, Information

Technology, Religion, Arts, Music, Physical Education. Due to the location of the school and its historical background, the school is often selected as a project school of the city.

### **2.3 INSTRUMENTATION OF THE SURVEY QUESTIONNAIRE**

The decision was taken at the Kick-off Meeting in Athens to develop this survey as the main collective tool to evaluate the impact of the project on pupils. The Finnish co-ordinator was responsible for developing an initial draft that would then be disseminated to the partner countries for comments. Since the aim was to approach the survey instrument scientifically, the process of development took longer than had initially been anticipated. For this reason, the questionnaire was not administered at kick-off. The original plan had been to measure the attitudes at kick-off and then later in the project. The survey grew to be a larger endeavour than anticipated and the enormity of the data from one round led to the decision not to readminister the survey.

The GEAR Survey Instrument was developed by four teachers at Rajala School in the period of November 2019 to January 2020. The group comprised two special education teachers, one language teacher and one bilingual stream class teacher. The target population was chosen non-randomly because the survey was concerned with investigating a specific population within the 6 partner schools. The partners agreed that they would use one grade level from their school that fell into the age range of 10 to 12 years. This age was felt to be the one that would have the best understanding of the concepts. The aim was to have statements that would be easy enough for a child aged 10-12 to understand, and which would reflect their world concerning environmental issues. The structure of the sentences was kept simple, each statement was different, and no statements were made using reverse syntaxes that could be confusing. Total population sampling was used but participation was voluntary and required the written permission of both pupil and parent. Once a working model had been achieved, the questionnaire was disseminated to each of the partner countries for their comments and input.

When a revised version had been agreed upon, the questionnaire was administered to a pilot 6<sup>th</sup> grade class (N=18) at Rajala School to ascertain if the statements were indeed clear enough for the pupils. This class fitted the agreed age range, but was not part of the target group. A further aim was to test the reliability (internal consistency) of the five attitudinal questions using Cronbach's Alpha to ascertain if the variables were measuring what they were supposed to. Generally, a Cronbach's Alpha value ( $\alpha$ ) of .70 to .80 is held as being indicative of good internal consistency, less than .50 is unacceptable (George & Mallery 2003, p. 231). The Cronbach Alpha results from the pilot study were very encouraging: (1) Relationship with own local environment,  $\alpha = .87$ ; (2) What Nature means

to you,  $\alpha = .93$ ; (3) Environmental Issues,  $\alpha = .90$ ; (4) Nature Discourses,  $\alpha = .92$ ; (5) Transnational Community of Practice,  $\alpha = .92$ . Thus, the variables were held as measuring the pupils' attitudes towards each of these.

Once the partners felt that the questionnaire was a reliable and valid survey instrument, the teachers at each of the partner schools translated the questionnaire into the home language of the pupils. The items had been discussed, so there was a common understanding of the underlying meaning of each of the items. Partners also had the opportunity to discuss any translation problems with the researchers. An error occurred for item three of the questionnaire. An older version of the survey instrument was translated, and this version contained one extra statement that was left out of the Finnish version. To retain the internal consistency of the scale, the superfluous item was removed from the data set. The Full GEAR Survey Instrument Items in English document is presented in Appendix One.

## **2.4 SURVEY PROCEDURES**

### **2.4.1 Data Collection**

Once the survey instrument had been finalised, it was to be administered in the period of February to March 2020. Three of the partner schools (Finland, Spain, and Italy) were able to do this before the Covid-19 pandemic. The other three schools administered the questionnaire at the end of September (Belgium, Greece, and Turkey). The survey was administered on paper in all of the school except for Turkey. The Turkish pupils completed the survey as an online questionnaire. This was because the school was in lockdown because of the Covid 19 Pandemic.

### **2.4.2 Data Analysis**

For the purpose of this report, only Descriptive Statistics have been computed for all of the quantitative variables in the questionnaire. This was done using the statistics programme PSPP. PSPP is a free software application for analysis of sampled data and is very similar to SPSS (Statistical Package for the Social Sciences). It was the only viable option for the project since a subscription to SPSS would have been too expensive. The Descriptive Statistics are presented as frequencies and percentages in tables or bar charts, and the different countries were compared.

## **2.5 ETHICAL CONSIDERATIONS**

This study adheres to all ethical principles as stipulated by the National Advisory Board on Research Ethics (NABoRE 2009), and the principles of autonomy, non-maleficence, beneficence, justice and

fidelity. The study adheres to the principle of informed consent, hence, parents and pupils were informed about the study in their local language. Since the subjects of this study are minors, written permission was obtained from both the respondent and their guardian in the local language in each country. Participation was voluntary. The questionnaire was answered anonymously and contains no indirect identifiers. All data will be handled confidentially.



### 3. SURVEY FINDINGS AND RESULTS

The primary inclusion criteria to the target population were that the pupils be aged between 10 and 12 years old.

*Table 3.1. Participation Rates and Percentage of Total Questionnaire Responses*

<b>Country</b>	<b>No. of Pupils in the Potential Cohort</b>	<b>No. of Pupils that Participated</b>	<b>Participation Rates as Percentages</b>	<b>Percentage of Total Questionnaire Responses</b>
<b>Basque Country (Spain)</b>	32	31	97	18.5
<b>Belgium</b>	17	17	100	10.1
<b>Finland</b>	64	43	67	25.6
<b>Greece</b>	18	9	50	5.4
<b>Italy</b>	48	25	52	14.9
<b>Turkey</b>	106	43	41	25.6
<b>Total</b>	285	168	60	100.1

The percentages of some countries are lower than those of others. This is because of the Covid-19 Pandemic. Some schools were closed for longer than others and it was not always possible to gather the data.

*Table 3.2. The Gender Distribution*

<b>Gender</b>	<b>Basque Country (Spain)</b>	<b>Belgium</b>	<b>Finland</b>	<b>Greece</b>	<b>Italy</b>	<b>Turkey</b>	<b>Total</b>
<b>Female</b>	14	5	23	4	15	24	85
<b>Male</b>	17	12	20	5	10	19	83
<b>Total</b>	31	17	43	9	25	43	168

Of the total number of participants, 51% were girls and 49% boys.

### 3.1. Survey Area One: Relationship with own Local Environment

The first of the attitude variables is '*Relationship with own Local Environment*'. Young people benefit from being actively involved in nature, the outdoors, and environmental matters, and this involvement increases their motivation as global citizens to address the challenges that environmental issues raise today (UNJF 2014). It is important to ensure that children and young people have opportunities to connect with nature by being outside and accruing outdoor experiences so that they may develop an affiliation with nature (Hayward 2012).

The aim of this scale was to ascertain how connected the pupils felt to their own local environment. Respondents were asked to rate a series of six statements based on how much they disagreed or agreed on the statement with regard to the meaning of their local environment to them personally. The options were: Totally Disagree; Disagree Somewhat; Neither Disagree nor Agree; Agree Somewhat; Totally Agree. The missing data that are reported are random missing data. Each statement constituted one Likert-scaled item, and collectively they constituted a summative Likert Scale. The scale had six items, and appeared to have internal consistency that is good,  $\alpha = .70$ . All items seem to be worthy of retention. The six Likert-scaled items are:

- (a) My local environment is important to me
- (b) I feel attached to my local environment
- (c) I spend time outside in my local environment
- (d) I enjoy spending time outside in my local environment
- (e) I can manage with confidence in my local environment
- (f) My local environment represents home to me

1(a) My local environment is important to me

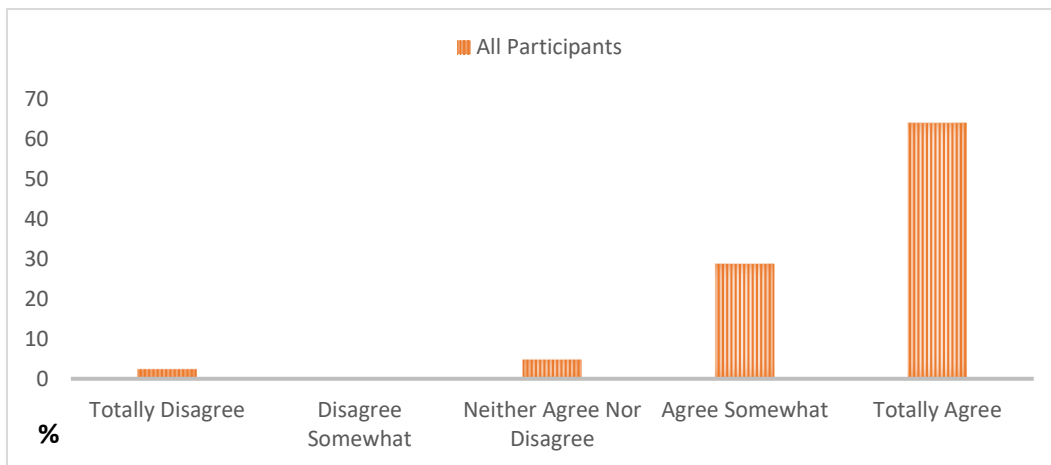


Figure 3.1. Distributions for the Likert-scaled Item 1(a) My Local Environment is Important to Me

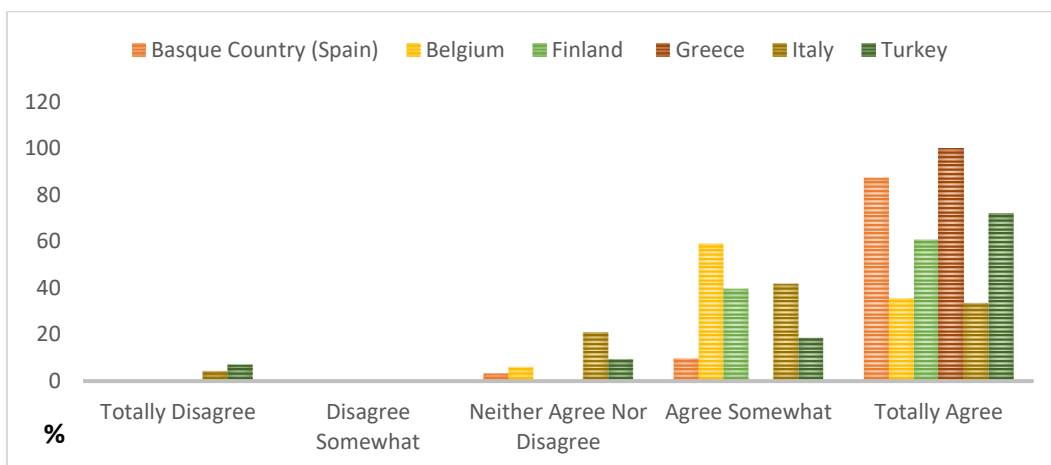


Figure 3.2. Distributions by Country for the Likert-scaled Item 1(a) My Local Environment is Important to Me

There are 167 valid responses for this item, 1 missing,  $M = 4.52$ ,  $SD = .80$ . It is clear that the pupils in each country feel that their local environment is important to them. The only disagreement came from pupils in Italy and Turkey and constitute a very small percentage of the respondents.

1(b) I feel attached to my local environment

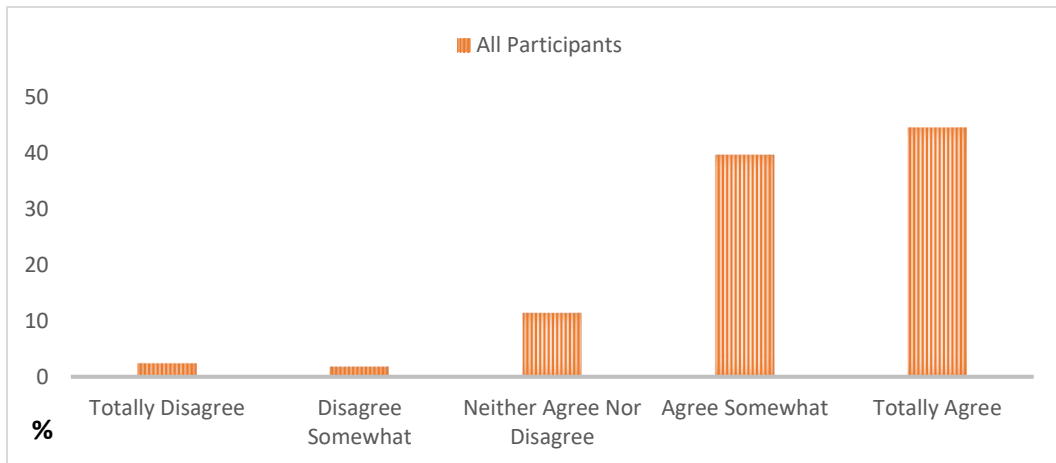


Figure 3.3. Distributions for the Likert-scaled Item 1(b) I Feel Attached to My Local Environment

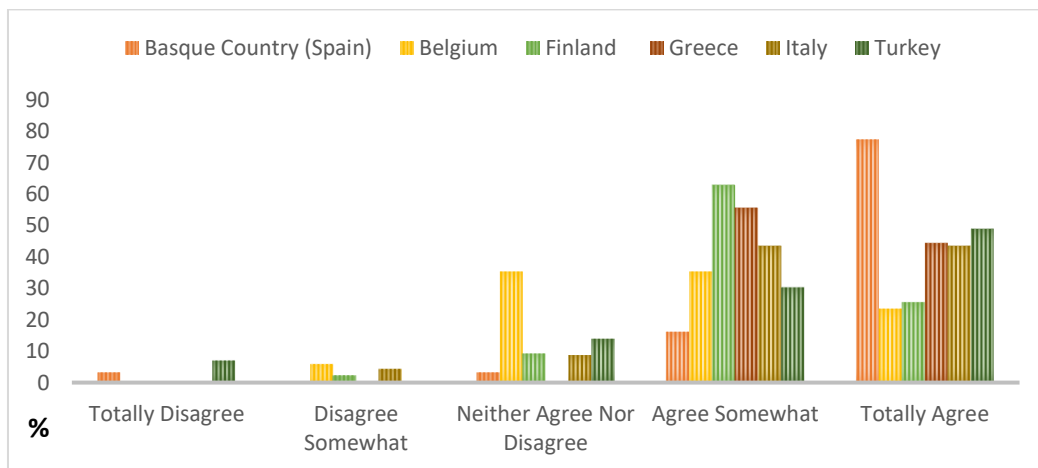


Figure 3.4. Distributions by Country for the Likert-scaled Item 1(b) I Feel Attached to My Local Environment

There are 166 valid responses for this item, 2 missing,  $M = 4.22$ ,  $SD = .90$ . Most of the pupils agree that they feel attached to their local environment. More pupils chose to neither agree nor disagree than for the previous item. The greatest percentage of pupils choosing this option are from Italy. There is slightly more disagreement for this item, too.

1(c) I spend time outside in my local environment

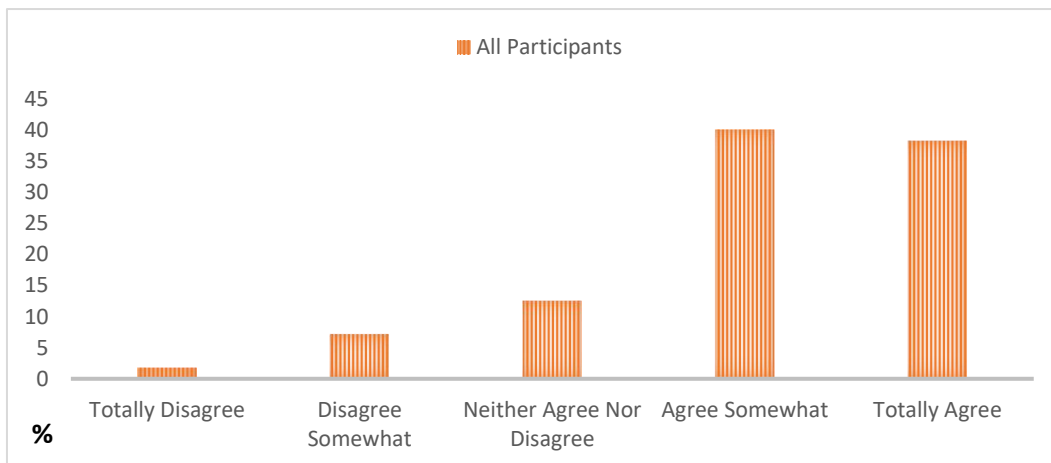


Figure 3.5. Distributions for the Likert-scaled Item 1(c) I Spend Time Outside in My Local Environment

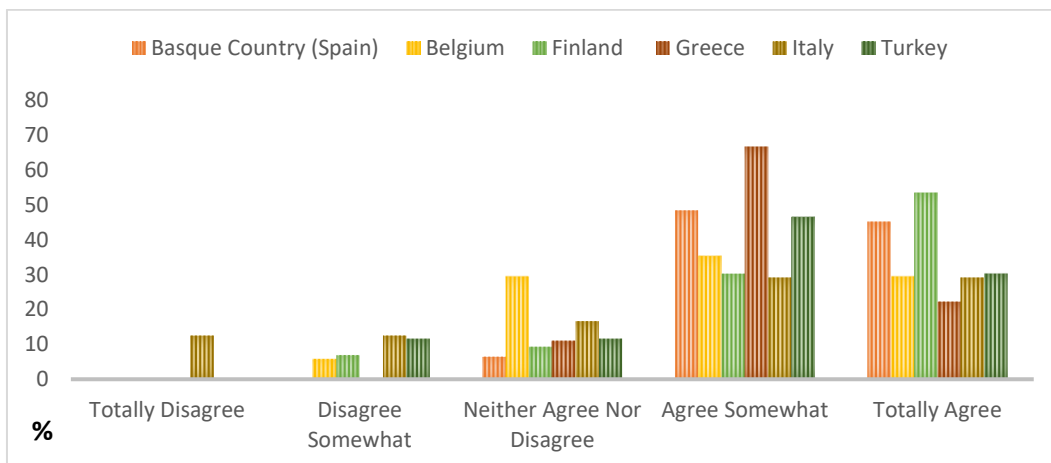


Figure 3.6. Distributions by Country for the Likert-scaled Item 1(c) I Spend Time Outside in My Local Environment

There are 167 valid responses for this item, 1 missing,  $M = 4.06$ ,  $SD = .98$ . The respondents were also mainly in accord with this statement irrespective of group. The greatest percentages of agreement came from the Basque Country (Spain) and Finland. The Greek percentage of agreement is also high, but it must be born in mind that the number of Greek respondents was much smaller than the other countries.

1(d) I enjoy spending time outside in my local environment

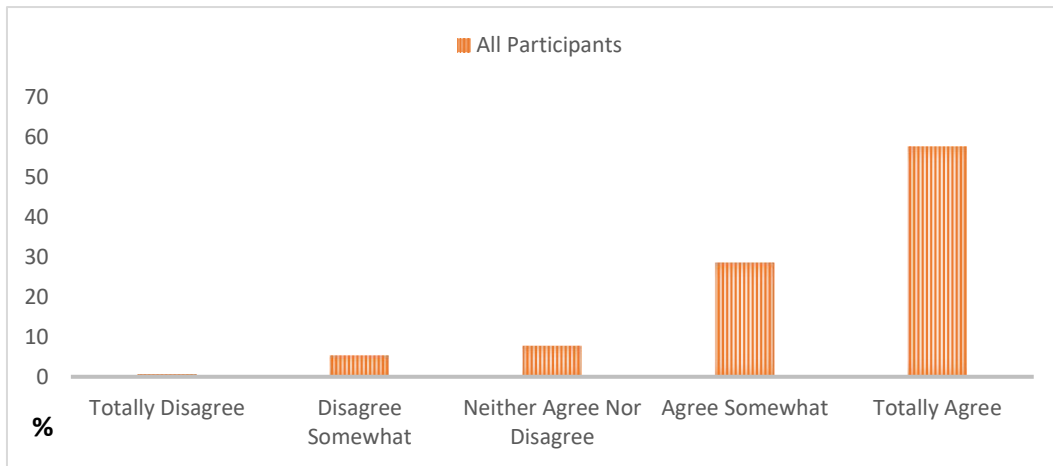


Figure 3.7. Distributions for the Likert-scaled Item 1(d) I Enjoy Spending Time Outside in My Local Environment

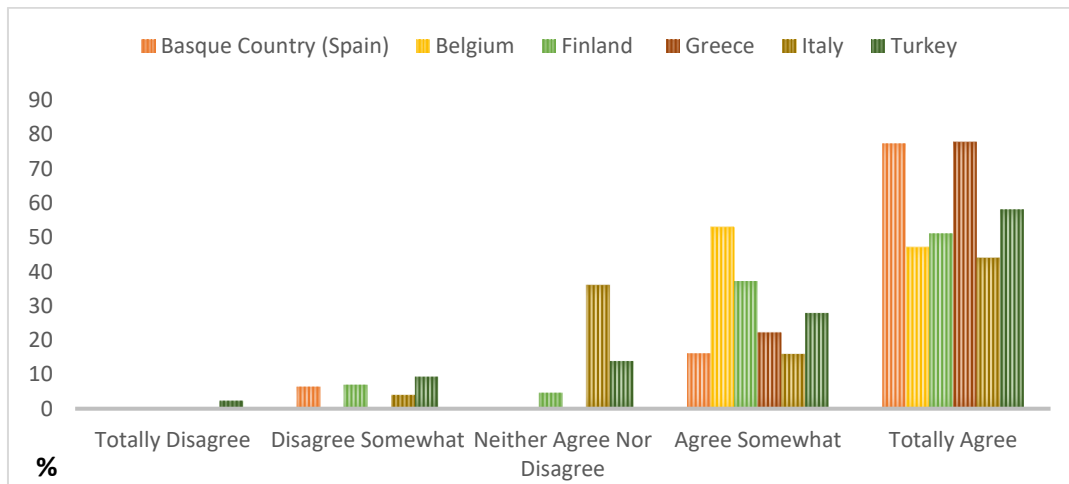


Figure 3.8. Distributions by Country for the Likert-scaled Item 1(d) I Enjoy Spending Time Outside in My Local Environment

There are 168 valid responses for this item, 0 missing,  $M = 4.38$ ,  $SD = .89$ . The response trend continues in the same positive vein for most of the countries with the greatest percentage of respondents in accord with the statement. For this item, almost half of the Italian respondents neither agree nor disagree. Given that the Italian school is situated in Rome, this might be one reason for this.

1(e) I can manage with confidence in my local environment

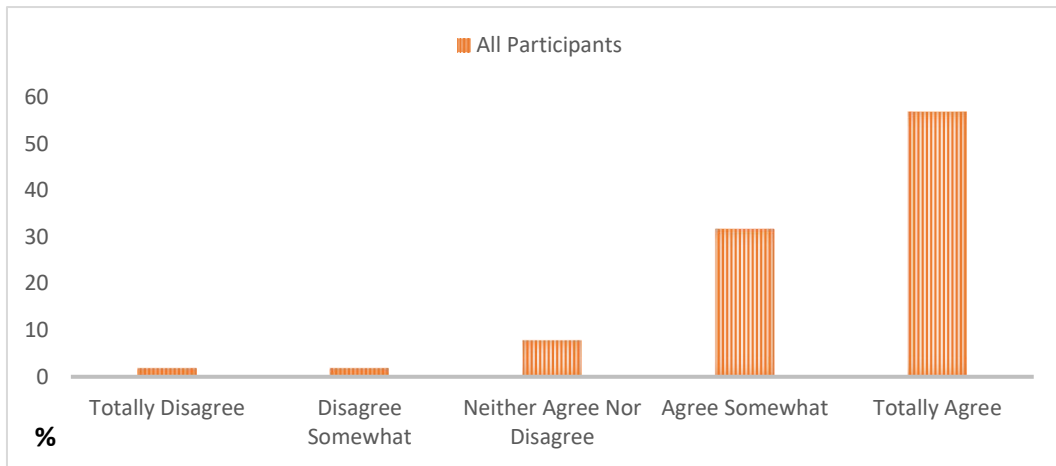


Figure 3.9. Distributions for the Likert-scaled Item 1(e) I Can Manage with Confidence in My Local Environment

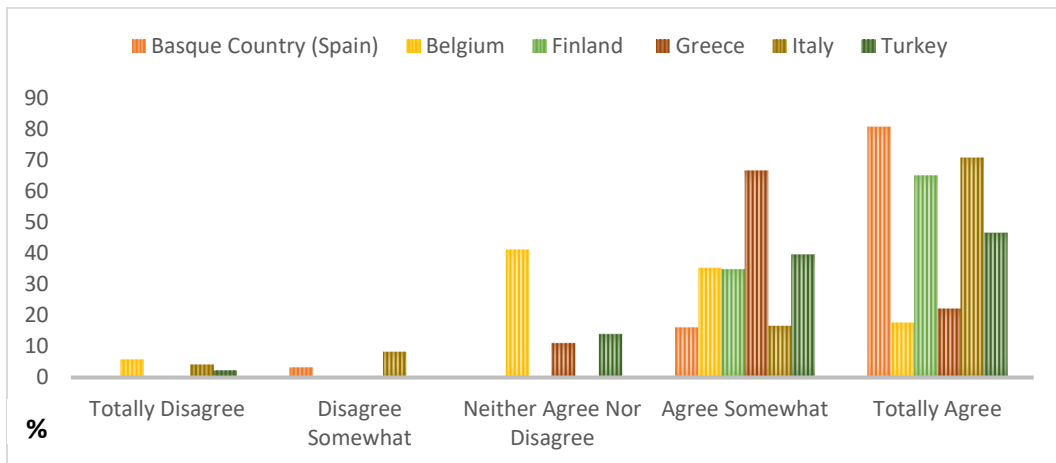


Figure 3.10. Distributions by Country for the Likert-scaled Item 1(e) I Can Manage with Confidence in My Local Environment

There are 167 valid responses for this item, 1 missing,  $M = 4.40$ ,  $SD = .85$ . For this item also, the respondents mostly are in accord with the statement. This time around 40% of the Belgian respondents were neutral.

1(f) My local environment represents home to me

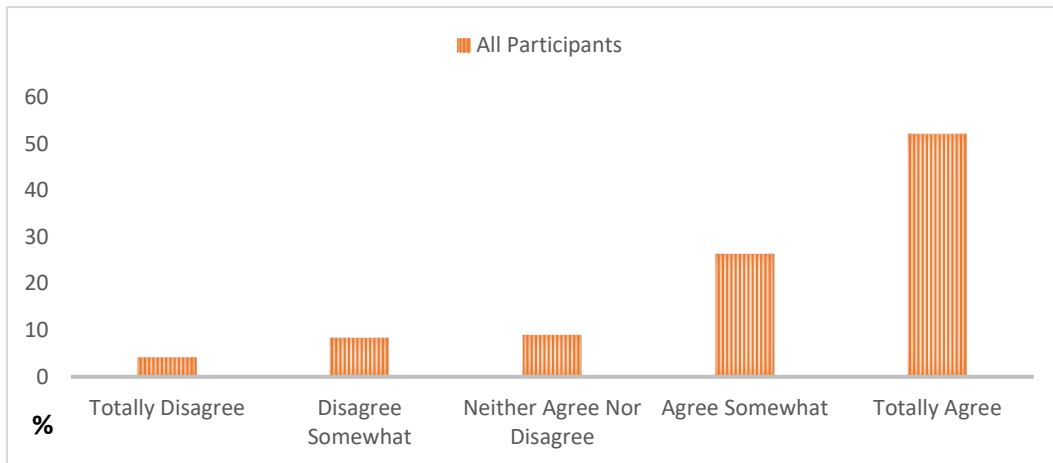


Figure 3.11. Distributions for the Likert-scaled Item 1(f) My Local Environment Represents Home to Me

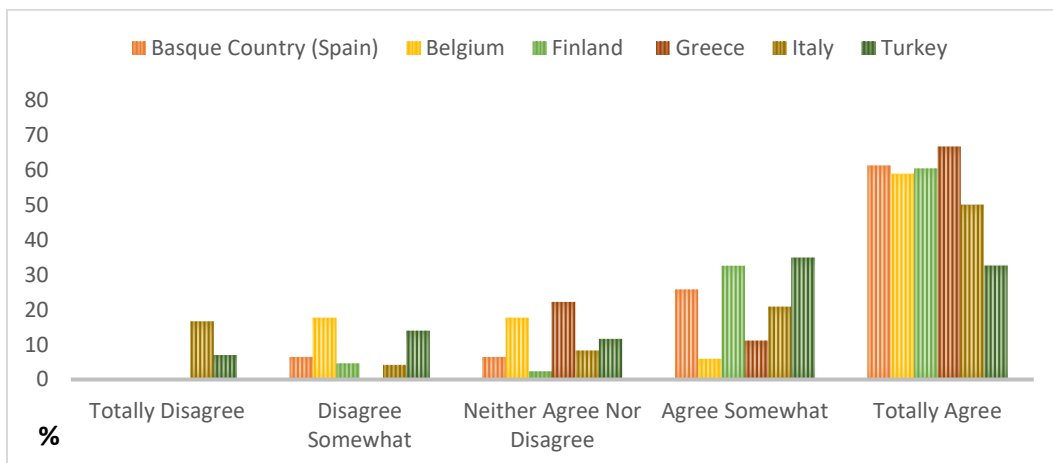


Figure 3.12. Distributions by Country for the Likert-scaled Item 1(f) My Local Environment Represents Home to Me

There are 167 valid responses for this item, 1 missing,  $M = 4.14$ ,  $SD = 1.15$ . The respondents were mainly in accord with this statement irrespective of group. The greatest disagreement came from Italy, with 17% totally disagreeing, followed by Turkey, with 14% disagreeing somewhat.

In sum, the pupils from all six of the partner countries appear to have a good connection with their local environment.



### 3.2 Survey Area Two: Nature

The second of the attitude variables is '*Relationship with Nature*'. The aim was to ascertain how connected the pupils actually felt towards Nature. Research is increasingly highlighting the importance of nature and green spaces to the health and well-being of people (Kuo 2010). The variable also comprises items concerned with how the pupils felt that they could manage in nature. This scale had 10 items, and appeared to have internal consistency that is excellent,  $\alpha = .89$ . All items seem to be worthy of retention.

Respondents were asked to rate a series of ten statements based on how much they disagreed or agreed on the statement with regard to what Nature means to them personally. The options were: Totally Disagree; Disagree Somewhat; Neither Disagree nor Agree; Agree Somewhat; Totally Agree. The missing data that are reported are random missing data. Each statement constituted one Likert-scaled item, and collectively they constituted a summative Likert Scale. The ten Likert-scaled items are:

- (a) Nature is important to me.
- (b) I feel attached to Nature.
- (c) I cherish Nature.
- (d) It is important to me to spend time outside in Nature.
- (e) I enjoy spending time outside in Nature.
- (f) I can manage with confidence in Nature.
- (g) I feel good when I am out in Nature.
- (h) I respect Nature.
- (i) My family makes use of the fruits of Nature.
- (j) Being outside in Nature is good for people.

2(a) Nature is important to me

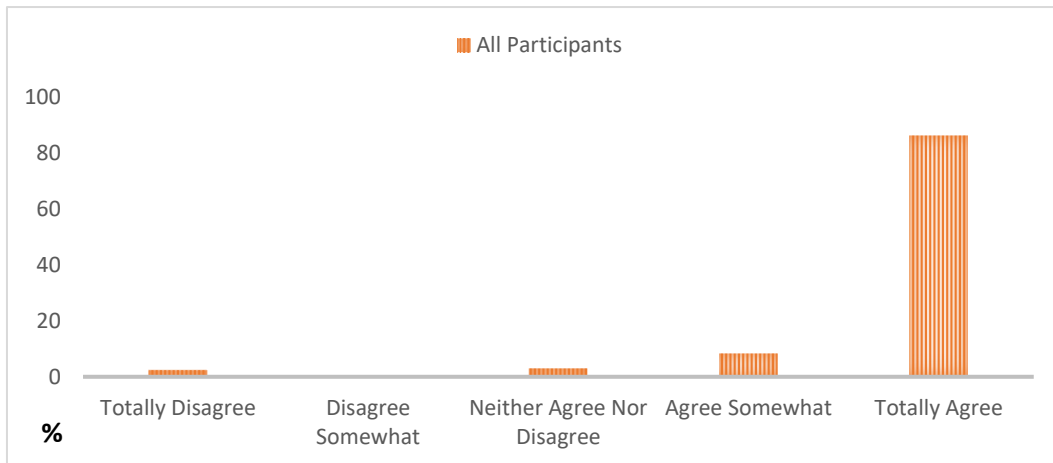


Figure 3.13. Distributions for the Likert-scaled Item 2(a) Nature is Important to Me

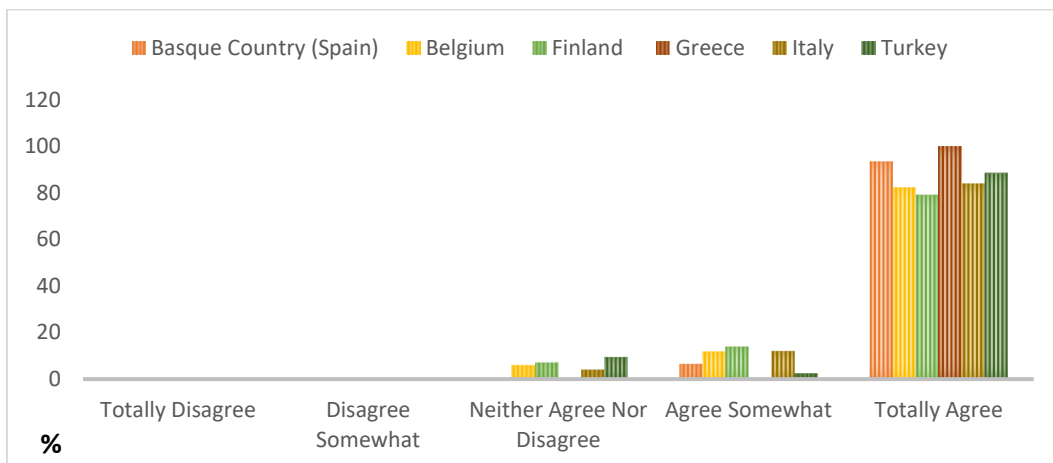


Figure 3.14. Distributions by Country for the Likert-scaled Item 2(a) Nature is Important to Me

There are 168 valid responses for this item, 0 missing,  $M = 4.76$ ,  $SD = .73$ . The respondents were very much in accordance with this item regardless of country. It is clear that Nature is important to young people no matter where they come from.

2(b) I feel attached to Nature

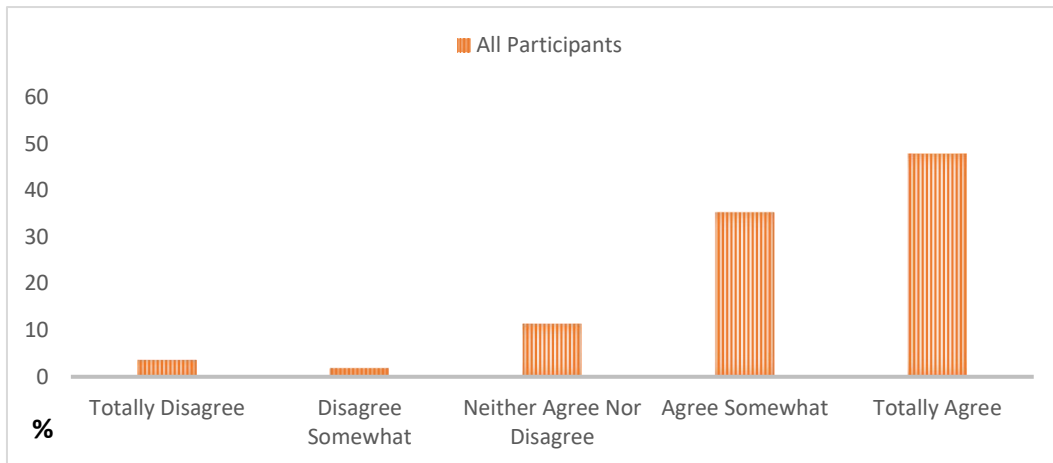


Figure 3.15. Distributions for the Likert-scaled Item 2(b) I Feel Attached to Nature

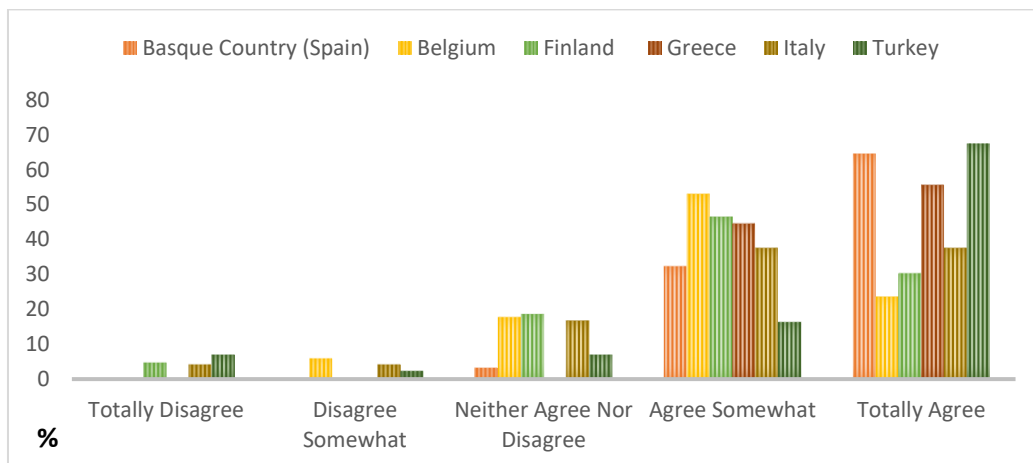


Figure 3.16. Distributions by Country for the Likert-scaled Item 2(b) I Feel Attached to Nature

There are 167 valid responses for this item, 1 missing,  $M = 4.22$ ,  $SD = .97$ . The respondents were mainly in accord with this statement irrespective of group but there is greater distribution of responses than for the previous item. Turkey had the greatest percentage of total disagreement (7%), followed by Italy and Finland, each with around 4 per cent.

2(c) I cherish Nature

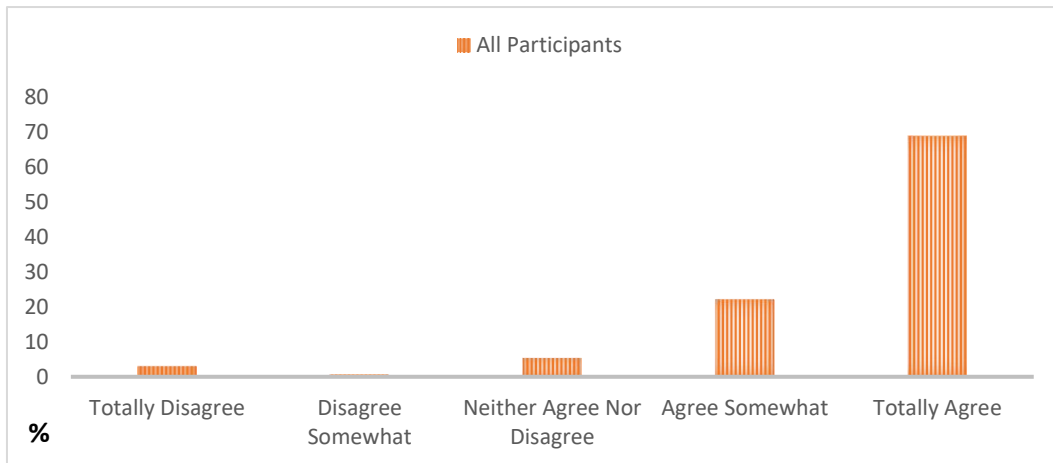


Figure 3.17. Distributions for the Likert-scaled Item 2(c) I Cherish Nature

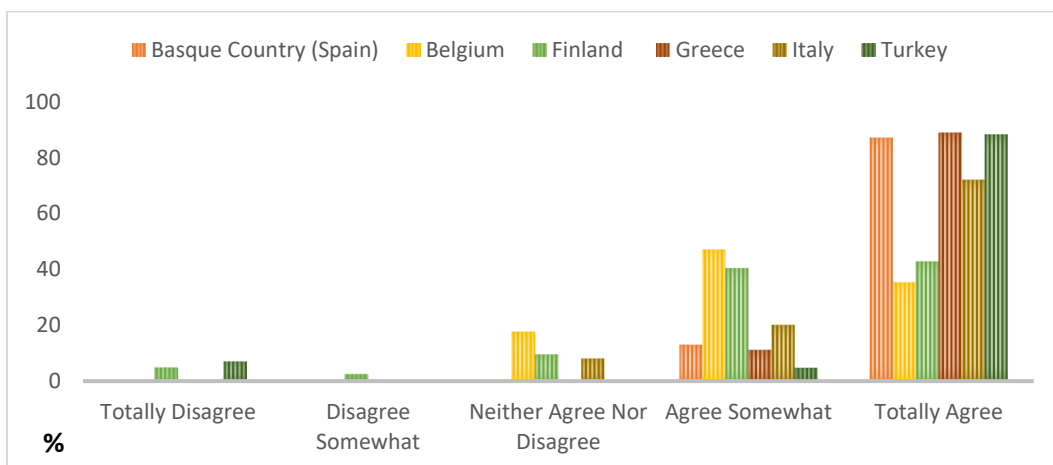


Figure 3.18. Distributions by Country for the Likert-scaled Item 2(c) I Cherish Nature

There are 167 valid responses for this item, 1 missing,  $M = 4.53$ ,  $SD = .87$ . The responses for this item are also mostly in agreement with the statement. The majority of responses for the Basque Country, Turkey and Greece are mainly in total agreement, followed by Italy. For Finland and Belgium, the agreement is split between totally agree and agree somewhat.

2(d) It is important to me to spend time outside in Nature

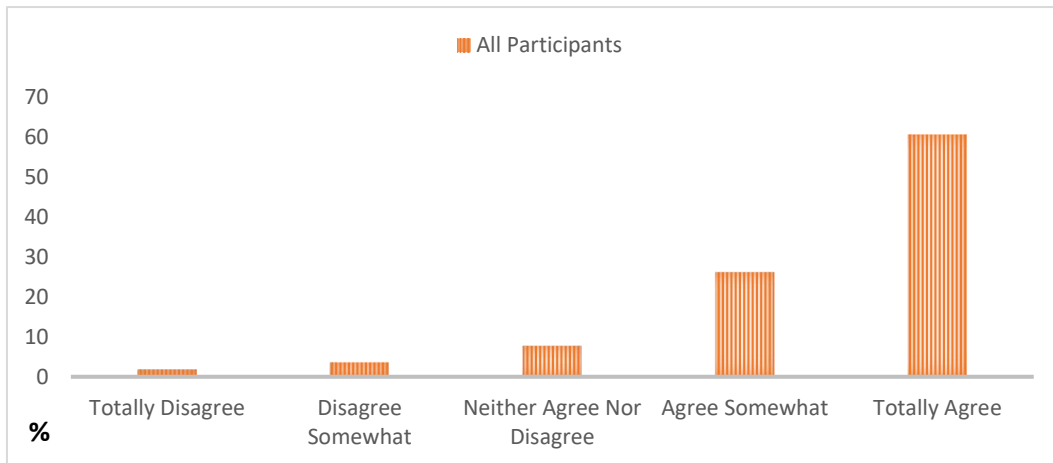


Figure 3.19. Distributions for the Likert-scaled Item 2(d) It is Important to Me to Spend Time Outside in Nature

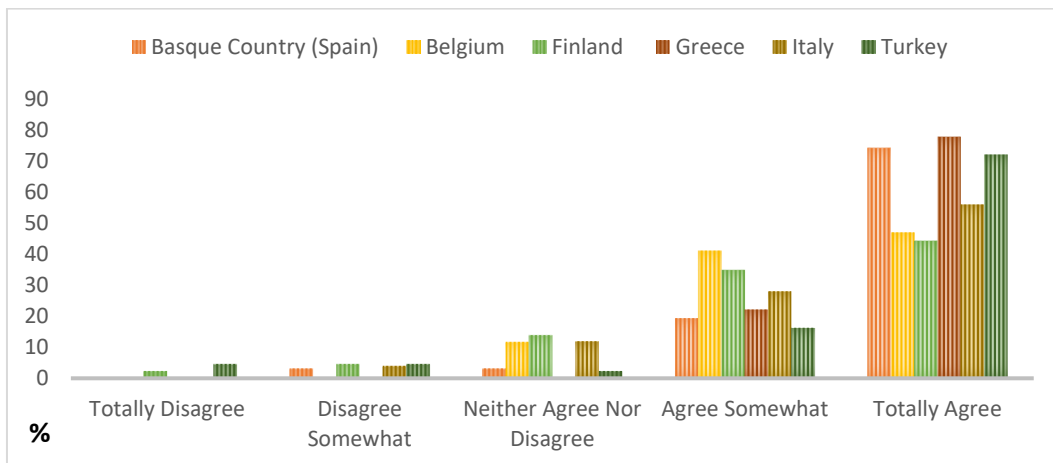


Figure 3.20. Distributions by Country for the Likert-scaled Item 2(d) It is Important to Me to Spend Time Outside in Nature

There are 168 valid responses for this item, 0 missing,  $M = 4.40$ ,  $SD = .91$ . The respondents were mainly in accord with this statement irrespective of group. Around 90% of the respondents agreed that it is important to them to spend time outside in Nature.

2(e) I enjoy spending time outside in Nature

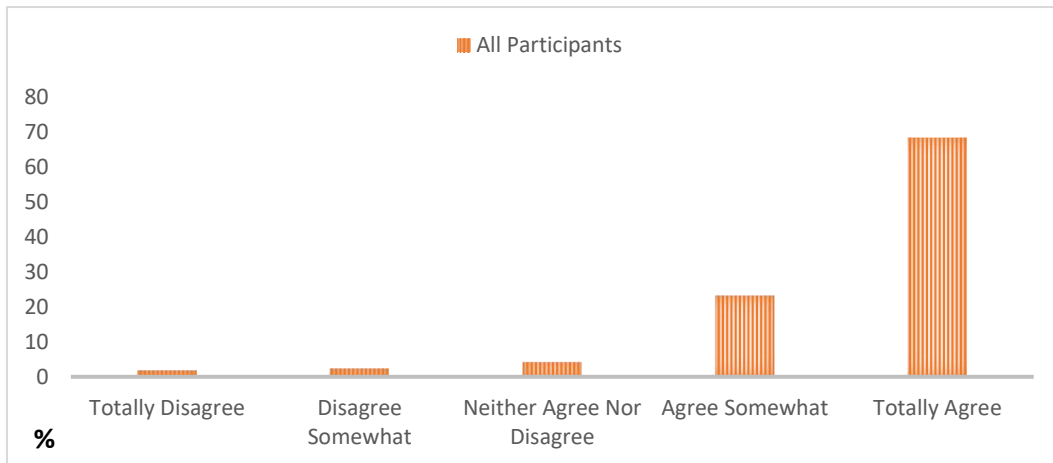


Figure 3.21. Distributions for the Likert-scaled Item 2(e) I Enjoy Spending Time Outside in Nature

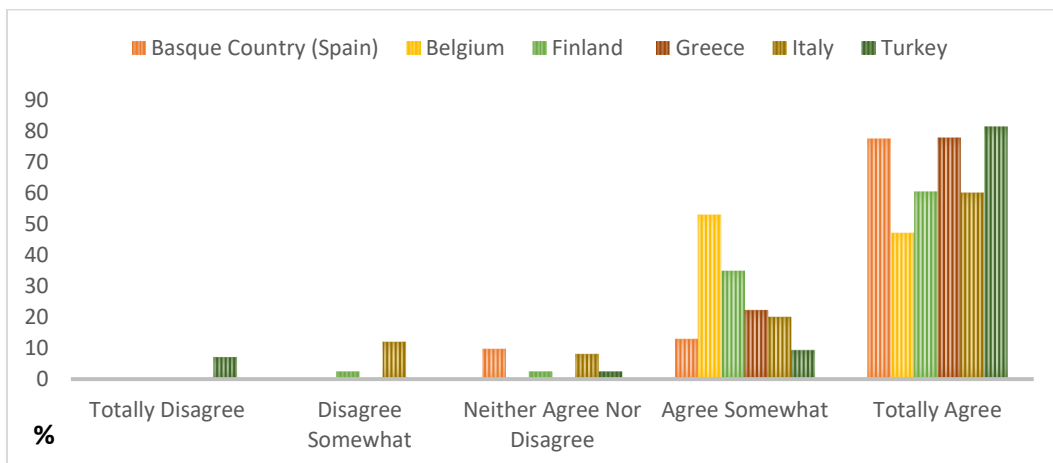


Figure 3.22. Distributions by Country for the Likert-scaled Item 2(e) I Enjoy Spending Time Outside in Nature

There are 168 valid responses for this item, 0 missing,  $M = 4.54$ ,  $SD = .83$ . The respondents were mainly in accord with this statement irrespective of group. Over 90% of the respondents agreed that they enjoy spending time outside in Nature to some degree.

2(f) I can manage with confidence in Nature

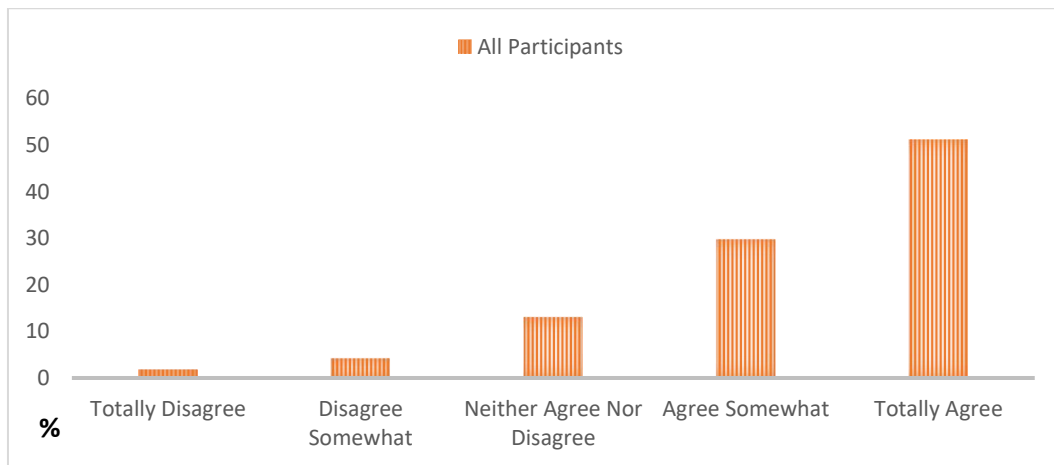


Figure 3.23. Distributions for the Likert-scaled Item 2(f) I Can Manage with Confidence in Nature

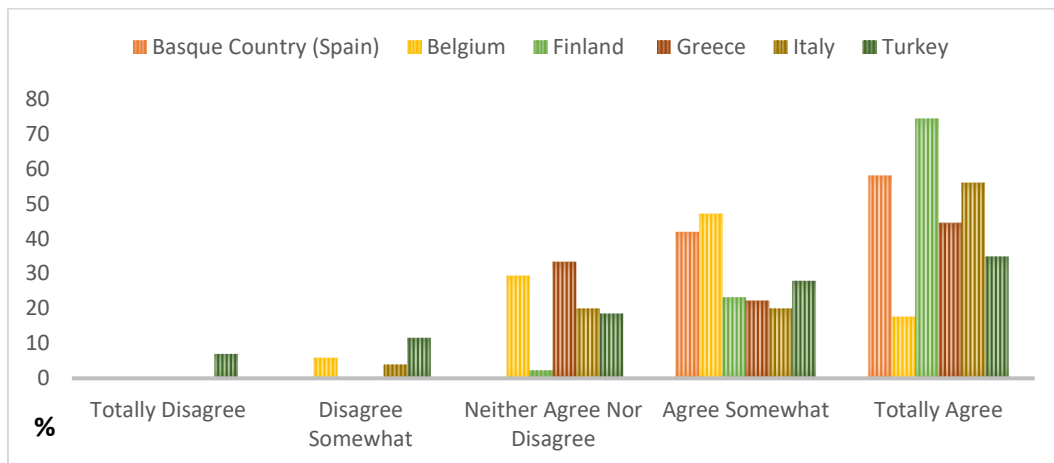


Figure 3.24. Distributions by Country for the Likert-scaled Item 2(f) I Can Manage with Confidence in Nature

There were 168 valid responses for this item, 0 missing,  $M = 4.24$ ,  $SD = .96$ . The idea behind this statement was to measure how comfortable the respondents were being outside in Nature. Again, the respondents were mainly in accord with this statement irrespective of group. The response distributions are different, however, with a greater percentage of neither agree nor disagree, and more of the agreement being somewhat rather than total. Finland stands out from the other countries with a 98-percent agreement and no disagreement for this item.

2(g) I feel good when I am out in Nature

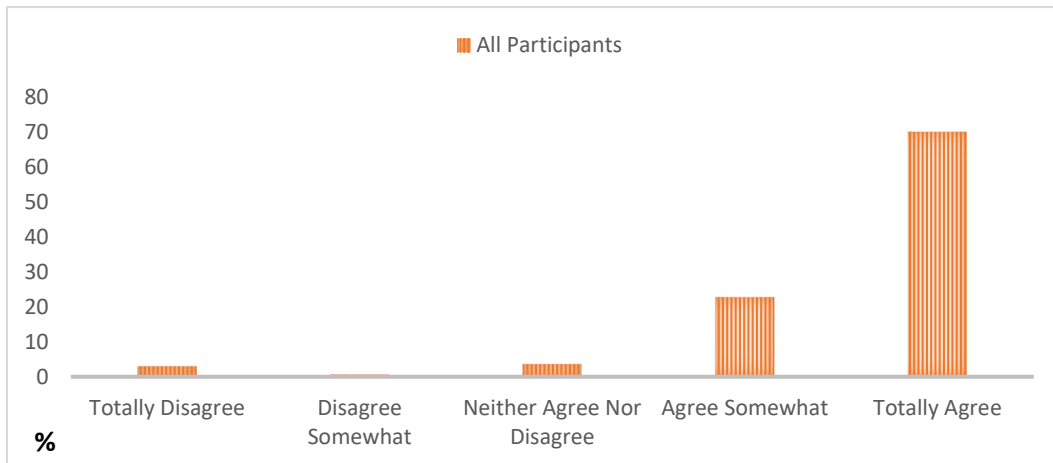


Figure 3.25. Distributions for the Likert-scaled Item 2(g) I Feel Good When I am Out in Nature

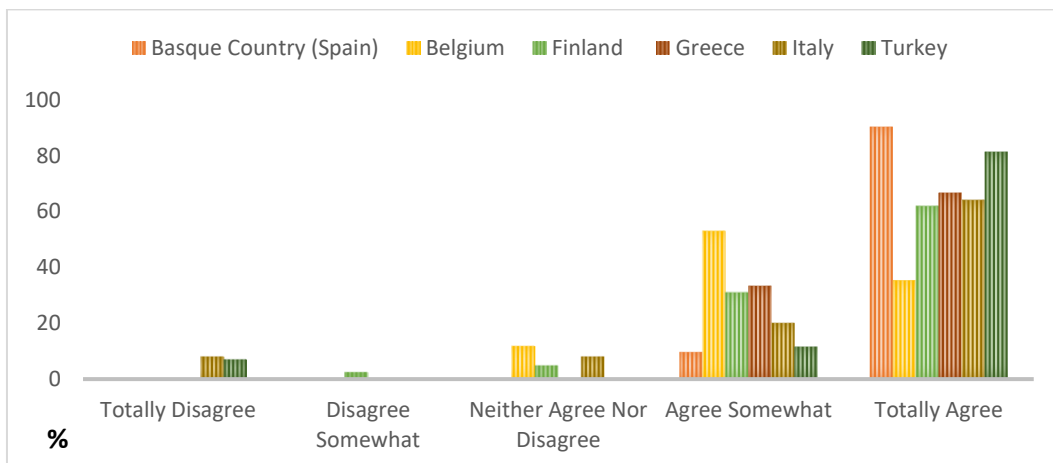


Figure 3.26. Distributions by Country for the Likert-scaled Item 2(g) I Feel Good When I am Out in Nature

There are 167 valid responses for this item, 1 missing,  $M = 4.56$ ,  $SD = .85$ . The respondent trend continues in the same vein for this item with most mainly in accord irrespective of group. The agreement of the Belgian respondents was more split between somewhat and totally than the other countries.



2(h) I respect Nature

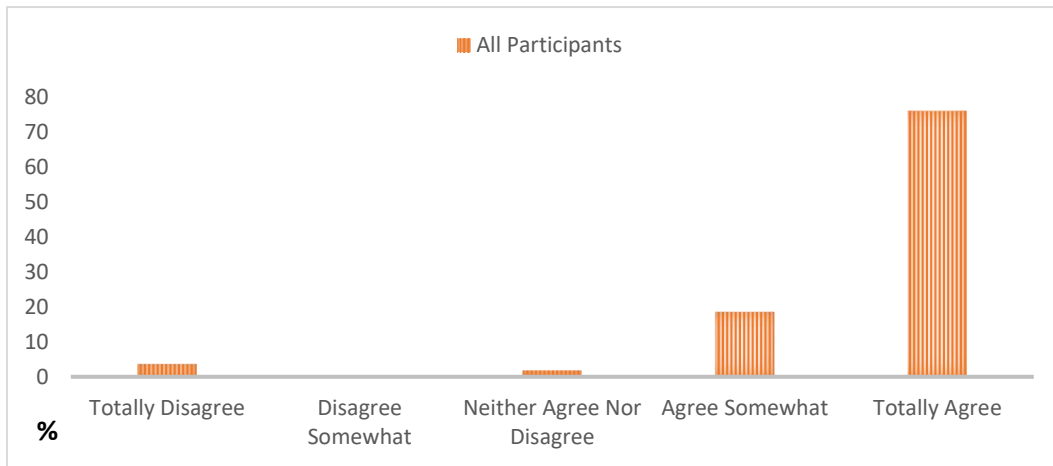


Figure 3.27. Distributions for the Likert-scaled Item 2(h) I Respect Nature

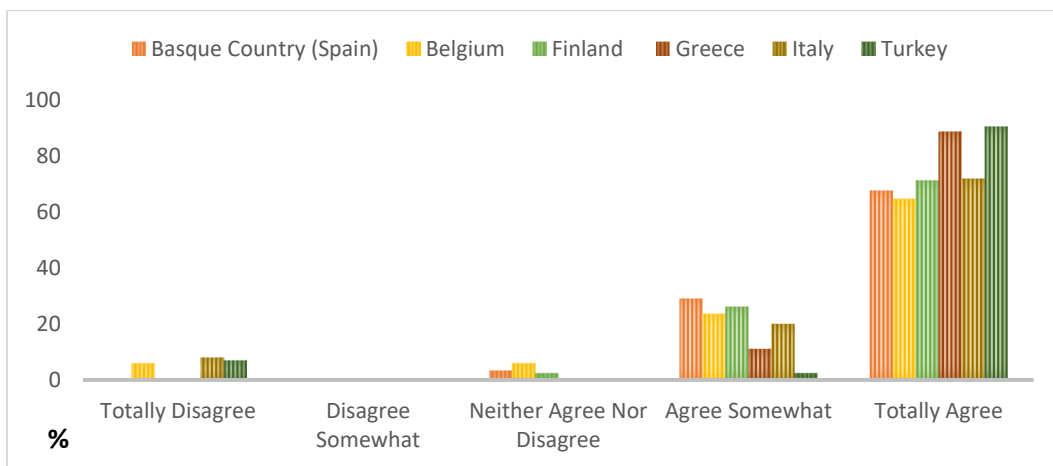


Figure 3.28. Distributions by Country for the Likert-scaled Item 2(h) I Respect Nature

There were 167 valid responses for this item, 1 missing,  $M = 4.63$ ,  $SD = .84$ . The respondents were again mainly in accord with this statement irrespective of group. This item did generate some total disagreement: 8% in Italy, 7% in Turkey, and 6% in Belgium. There was no disagreement from the Basque Country, Greece, or Finland.

2(i) My family makes use of the fruits of Nature

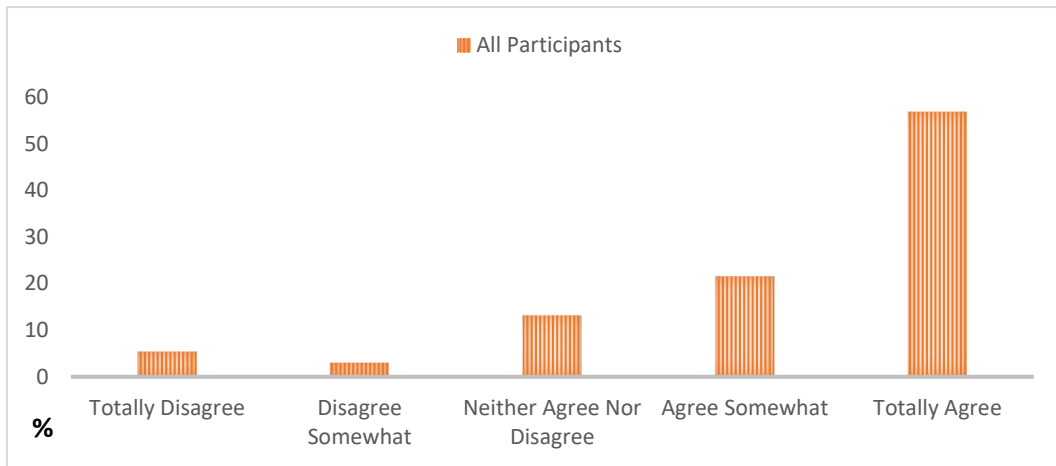


Figure 3.29. Distributions for the Likert-scaled Item 2(i) My Family Makes Use of the Fruits of Nature

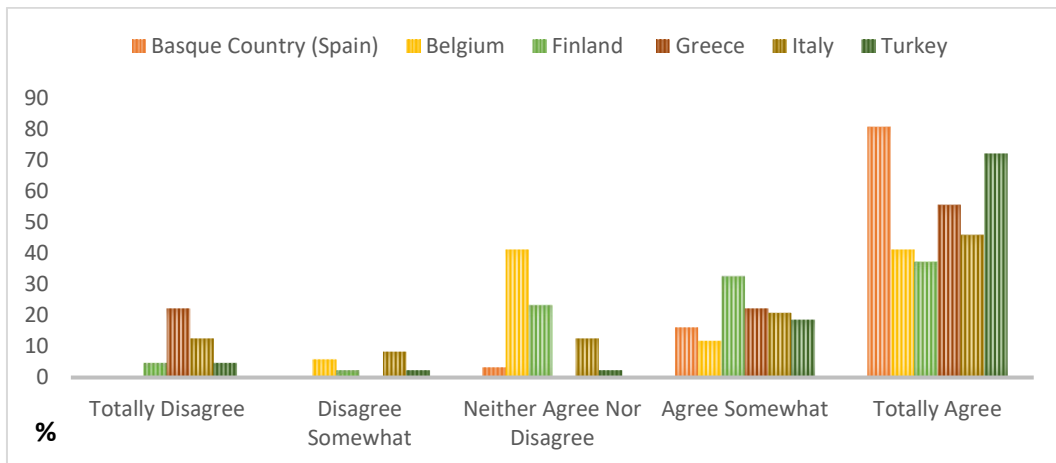


Figure 3.30. Distributions by Country for the Likert-scaled Item 2(i) My Family Makes Use of the Fruits of Nature

There are 167 valid responses for this item, 1 missing,  $M = 4.22$ ,  $SD = 1.13$ . The respondents were mainly in accord with this statement irrespective of group, but the responses were more differentiated than for some of the previous items.

2(j) Being outside in Nature is good for people

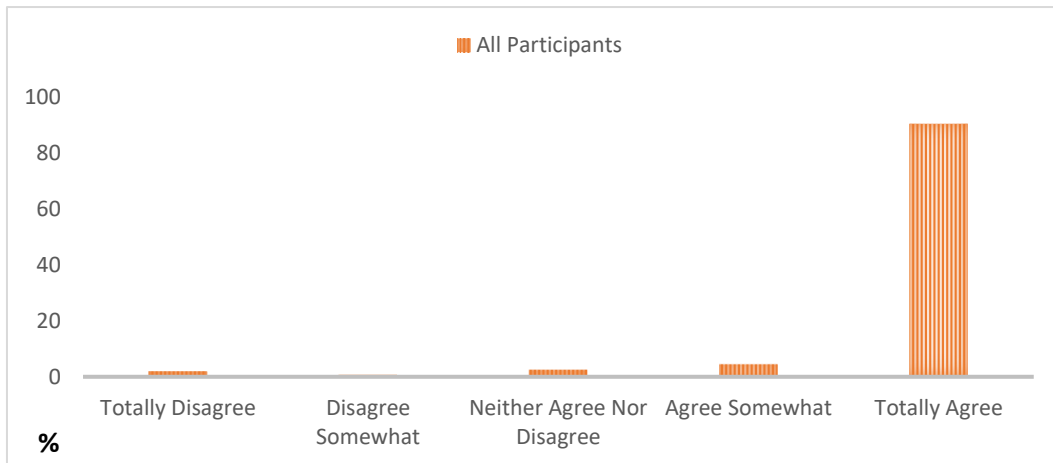


Figure 3.31. Distributions for the Likert-scaled Item 2(j) Being Outside in Nature is Good for People

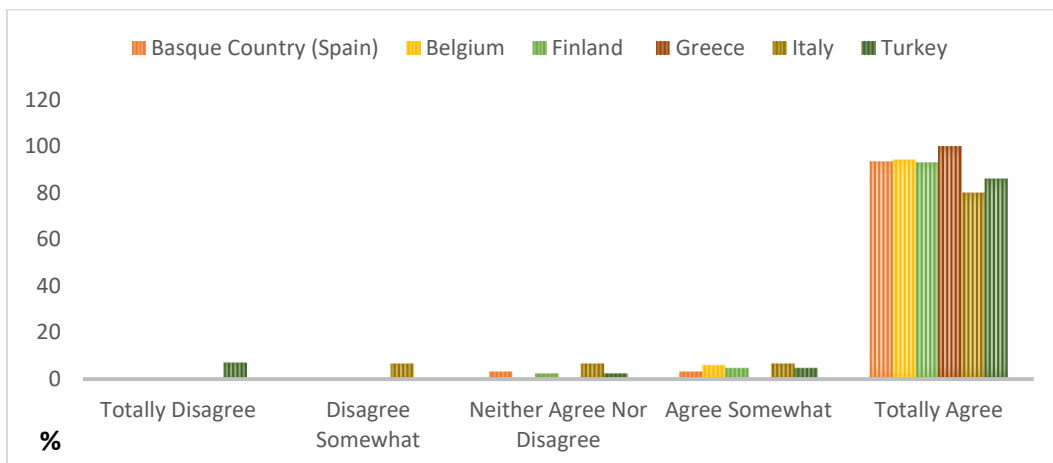


Figure 3.32. Distributions by Country for the Likert-scaled Item 2(j) Being Outside in Nature is Good for People

There were 158 valid responses for this item, 10 missing,  $M = 4.81$ ,  $SD = .69$ . For some reason, this item generated a greater number of missing responses than other items. This notwithstanding, the respondents were mainly in accord with this statement irrespective of group.

In sum, the pupils from all six of the partner countries appear to have a good connection with Nature. Nature is important to them, and the majority are attached to it, cherish, and respect it. The majority also feel that Nature is important for people, and they feel good when they are outside in Nature

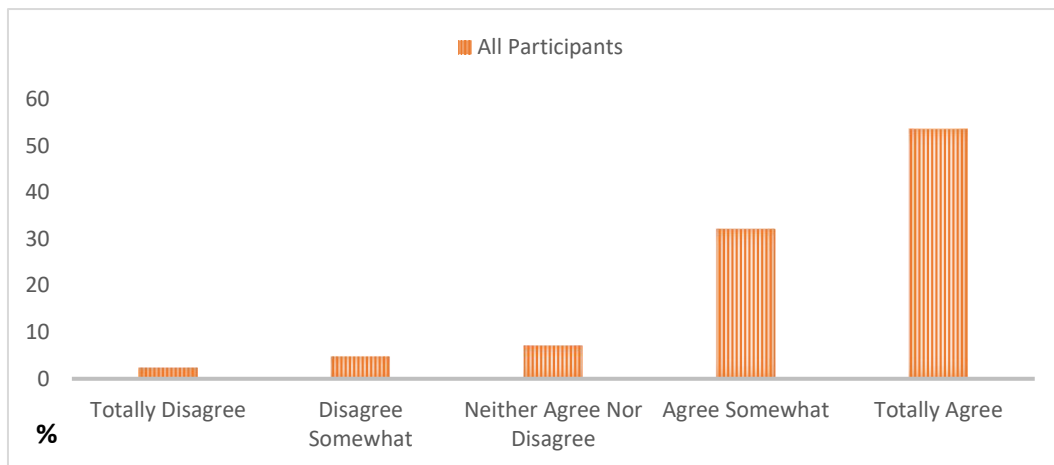
### 3.3 Survey Area Three: Environmental Issues

A connection with nature alone is insufficient for developing a more responsible attitude to the environment and must be accompanied by formal education to increase environmental awareness. Education, especially in the early years, has proven to be a successful forum for increasing young people's awareness about environmental issues and empowering them to act in the face of challenges through climate change (ECI 2014). Indeed, one of the main ways in which international community governments have committed to increasing awareness about environmental issues is through their national educational systems, and using national curricula focusing on sustainability, children are taught about environmental issues at school (FNBE 2016; ECI 2014).

This scale was linked with matters that pupils may be expected to study in their national curriculum. It comprised items linked with sustainability and environmental awareness. Respondents were asked to rate a series of 12 statements based on how much they disagreed or agreed on the statement with regard to matters connected to general environmental awareness. The options were: Totally Disagree; Disagree Somewhat; Neither Disagree nor Agree; Agree Somewhat; Totally Agree. The missing data that are reported are random missing data. Each statement constituted one Likert-scaled item, and collectively they constituted a summative Likert Scale. An error occurred in the translation process. An older version of the survey instrument was translated, which contained one extra statement that was left out of the Finnish version. To retain the internal consistency of the scale, the superfluous item was removed from the data set. This scale had 12 items, and appeared to have internal consistency that is good,  $\alpha = .70$ . All items seem to be worthy of retention. The 12 Likert-scaled items are:

- (a) I recycle rubbish actively at home
- (b) I recycle rubbish even when I am not at home (e.g. at school, when visiting others, outside)
- (c) I don't mind using things that have been owned by somebody else
- (d) I don't mind wearing clothes that have been owned by somebody else
- (e) When possible, I walk or cycle to school
- (f) When possible, I use public transport instead of the car
- (g) I remember to switch off lights when I leave a room
- (h) I remember to switch off machines instead of leaving them on standby
- (i) I switch the water off when I clean my teeth
- (j) I don't use too much water in the shower
- (k) I don't waste food
- (l) I know that my lifestyle can affect the environment

3(a) I recycle rubbish actively at home



(a) Figure 3.33. Distributions for the Likert-scaled Item 3(a) I Recycle Rubbish Actively at Home

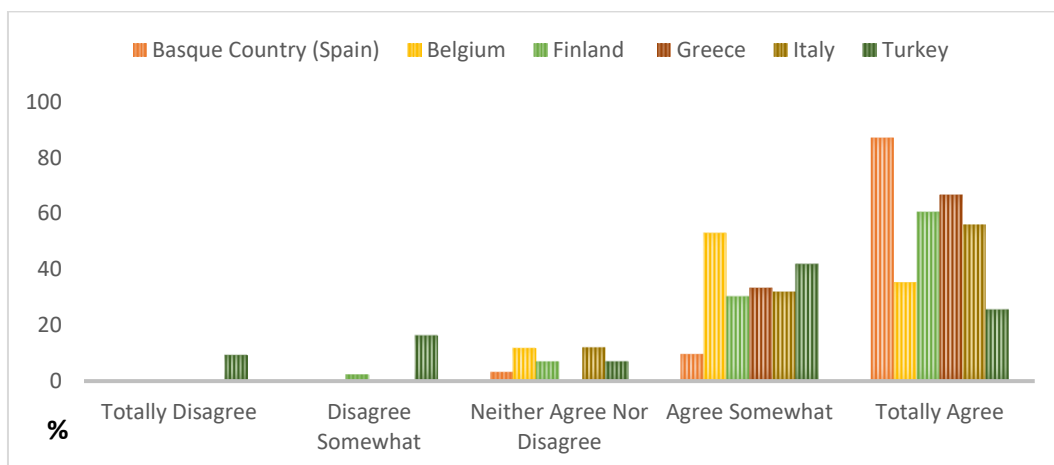


Figure 3.34. Distributions by Country for the Likert-scaled Item 3(a) I Recycle Rubbish Actively at Home

There were 168 valid responses for this item, 0 missing,  $M = 4.3$ ,  $SD = .96$ . The respondents were mainly in accord with the statement regardless of country. Turkey stood out from the other countries, with a quarter of respondents disagreeing with the statement.

3(b) I recycle rubbish even when I am not at home (e.g. at school, when visiting others, outside)

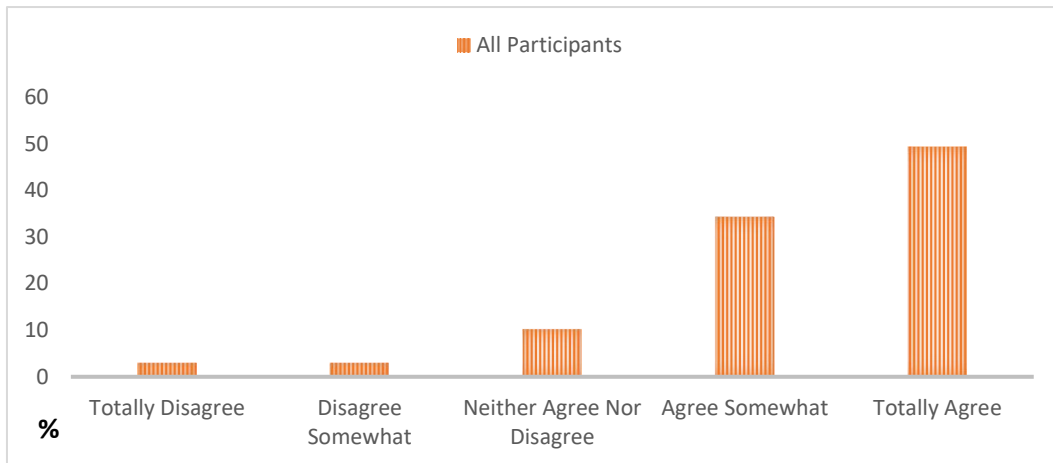


Figure 3.35. Distributions for the Likert-scaled Item 3(b) I Recycle Rubbish Even When I am Not at Home (E.g. at School, When Visiting Others, Outside)

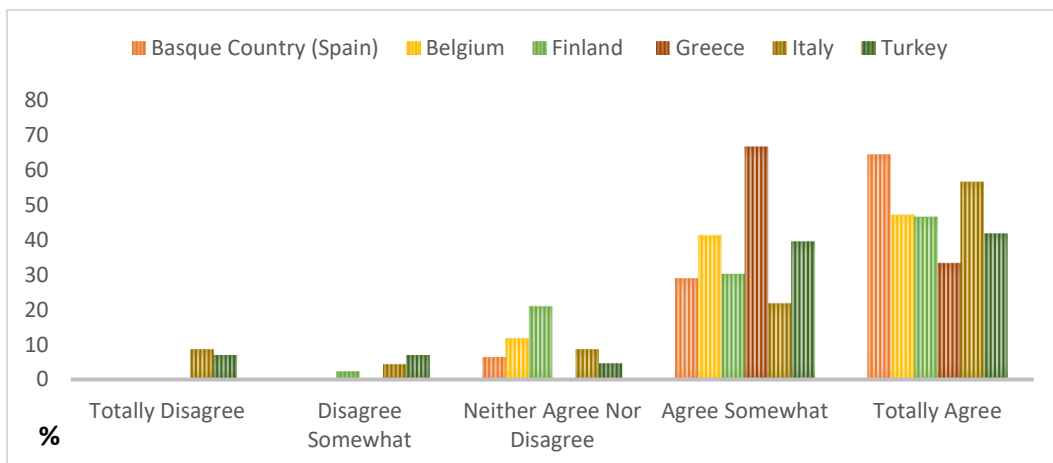


Figure 3.36. Distributions by Country for the Likert-scaled Item 3(b) I Recycle Rubbish Even When I am Not at Home (E.g. at School, When Visiting Others, Outside)

There were 166 valid responses for this item, 2 missing,  $M = 4.24$ ,  $SD = .97$ . The majority of respondents were in agreement that they recycle rubbish even when they are not at home. Italy and Turkey had the greatest amount of disagreement with 13% and 14% respectively.

3(c) I don't mind using things that have been owned by somebody else

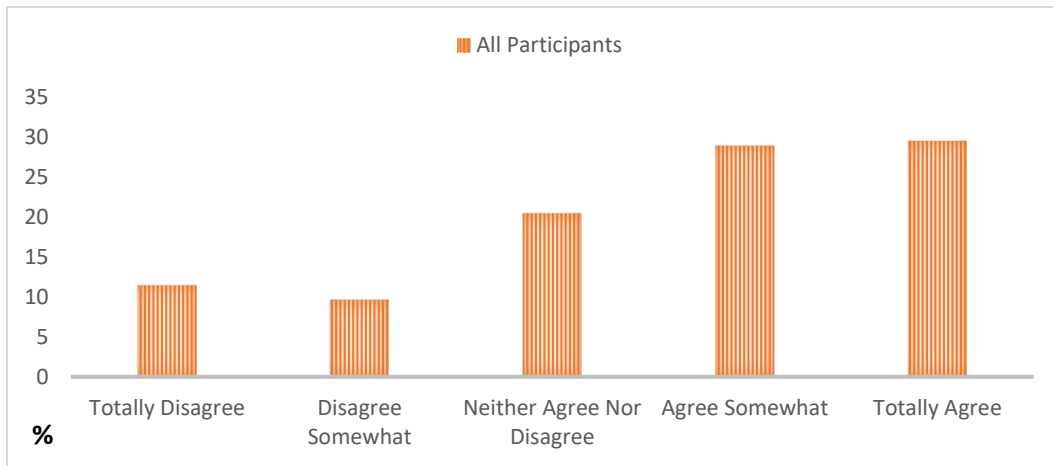


Figure 3.37. Distributions for the Likert-scaled Item 3(c) I Don't Mind Using Things That Have Been Owned by Somebody Else

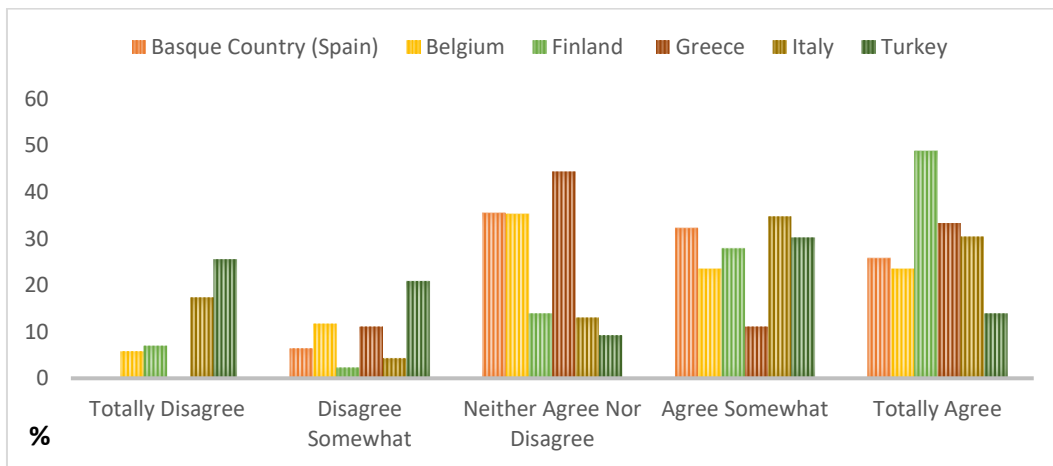


Figure 3.38. Distributions by Country for the Likert-scaled Item 3(c) I Don't Mind Using Things That Have Been Owned by Somebody Else

There were 166 valid responses for this item, 2 missing,  $M = 3.55$ ,  $SD = 1.31$ . This item generated a range of responses. Finland had the greatest agreement with the item at 77% or respondents agreeing totally or somewhat. This item generated more disagreement and more neutral responses than previous items. Thus, many respondents do mind using things that have belonged to someone else.

3(d) I don't mind wearing clothes that have been owned by somebody else

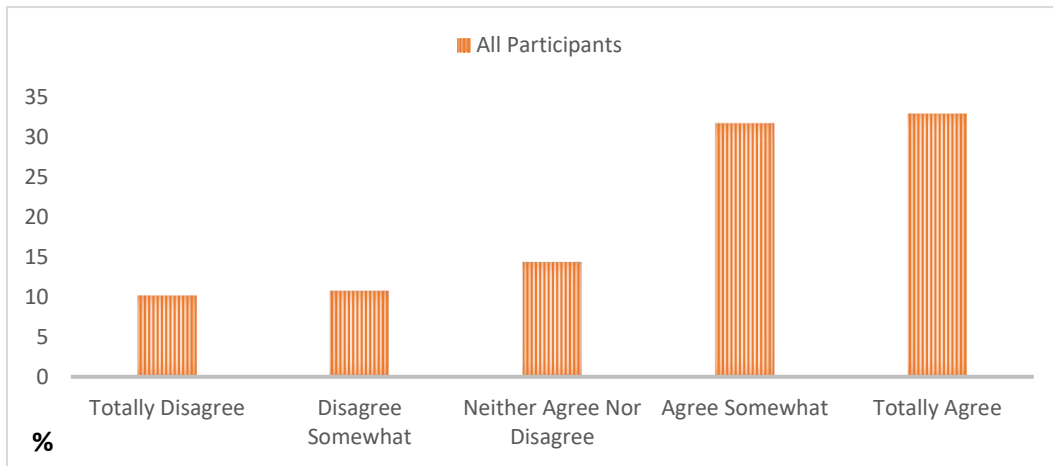


Figure 3.39. Distributions for the Likert-scaled Item 3(d) I Don't Mind Wearing Clothes That Have Been Owned by Somebody Else

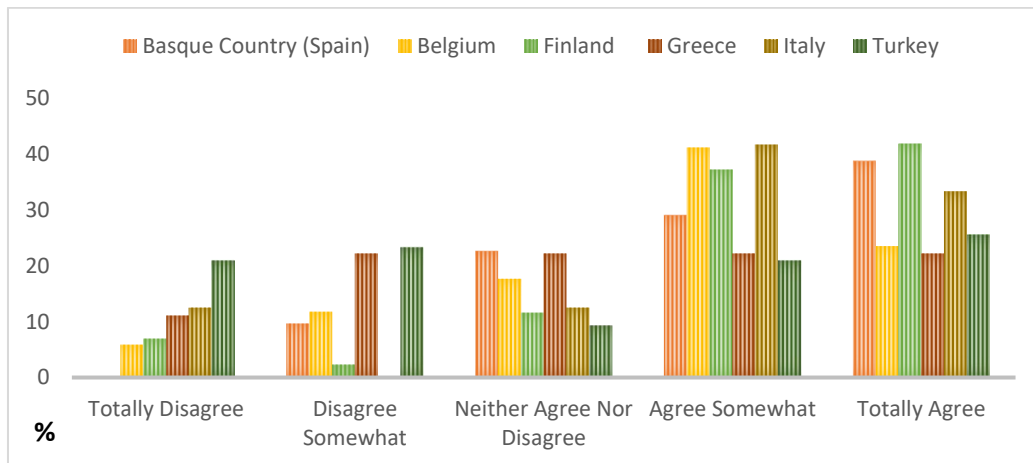


Figure 3.40. Distributions by Country for the Likert-scaled Item 3(d) I Don't Mind Wearing Clothes That Have Been Owned by Somebody Else

This item generated 167 valid responses, 1 missing,  $M = 3.66$ ,  $SD = 1.31$ . It shows a similar trend to the previous item about using something that has belonged to someone else. Most respondents are, however, in agreement with the statement. Thus, while 70% of the respondents do not mind wearing clothes that have belonged to someone else, one tenth are unsure and a fifth disagree.



3(e) When possible, I walk or cycle to school

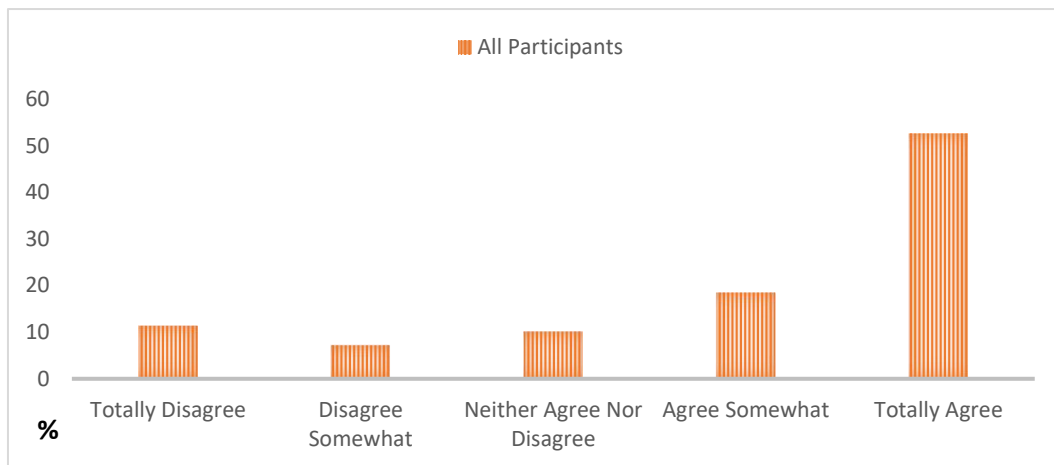


Figure 3.41. Distributions for the Likert-scaled Item 3(e) When Possible, I Walk or Cycle to School

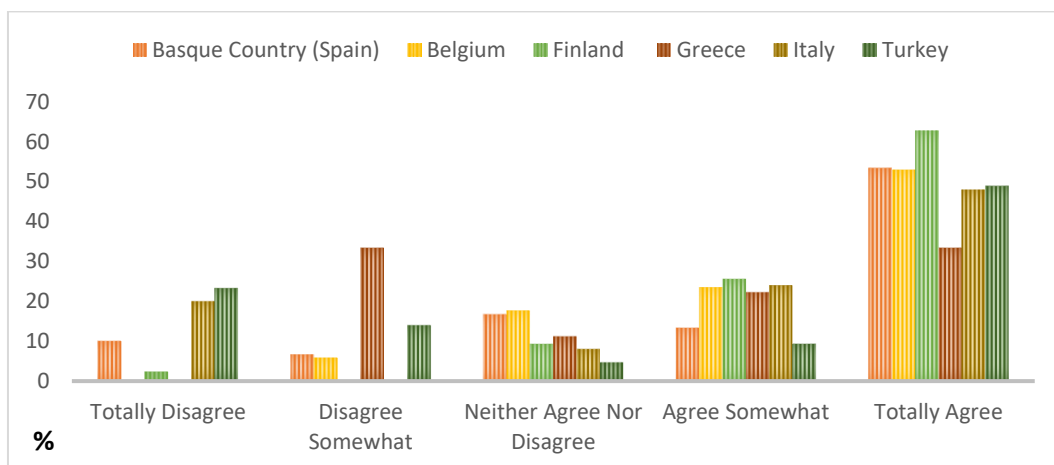


Figure 3.42. Distributions by Country for the Likert-scaled Item 3(e) When Possible, I Walk or Cycle to School

This item generated 167 valid responses, 1 missing,  $M = 3.94$ ,  $SD = 1.40$ . There was a high percentage of disagreement from Turkey for this item, with around a third of respondents disagreeing. Again, the majority are in agreement.

3(f) When possible, I use public transport instead of the car

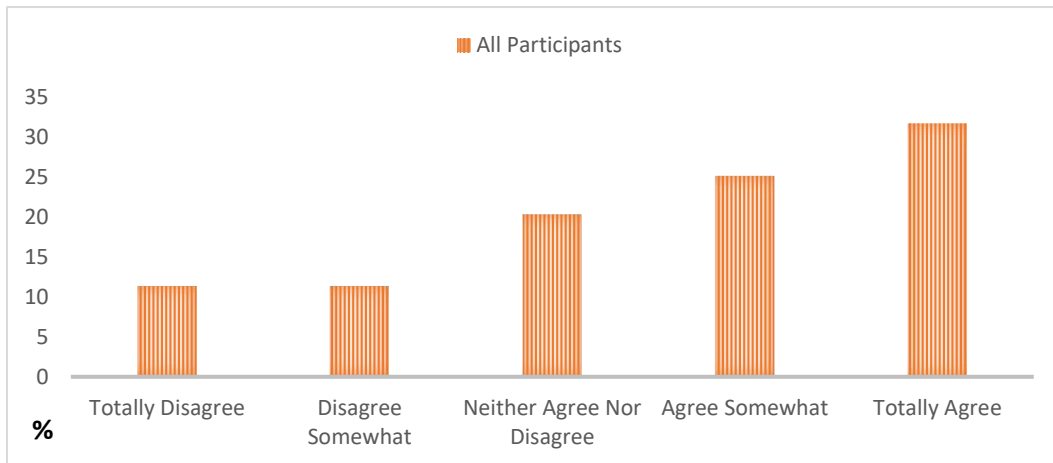


Figure 3.43. Distributions for the Likert-scaled Item 3(f) When Possible, I Use Public Transport Instead of the Car

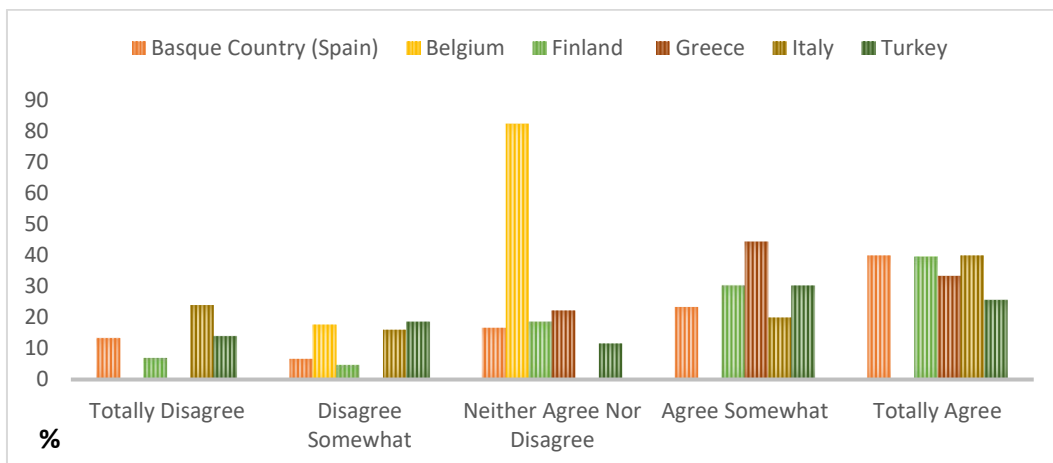


Figure 3.44. Distributions by Country for the Likert-scaled Item 3(f) When Possible, I Use Public Transport Instead of the Car

There were 167 valid responses for this item, 1 missing,  $M = 3.54$ ,  $SD = 1.34$ . While the trend of agreement remains largely similar to other responses, the Belgian responses are of particular interest here. There is no agreement; 80% gave a neutral response and the remainder disagreed somewhat. The Belgian school was in a rural area, so perhaps there is less opportunity or need to take public transport.

3(g) I remember to switch off lights when I leave a room

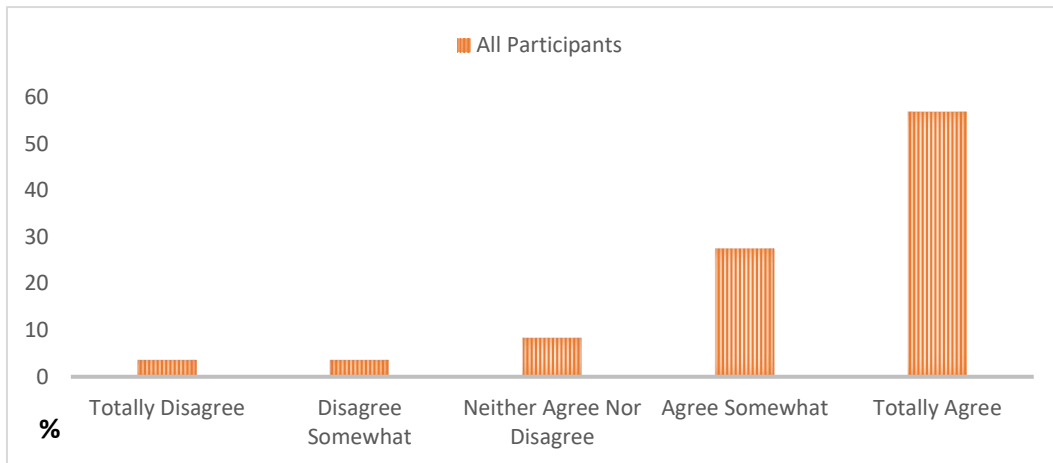


Figure 3.45. Distributions for the Likert-scaled Item 3(g) I Remember to Switch off Lights When I Leave a Room

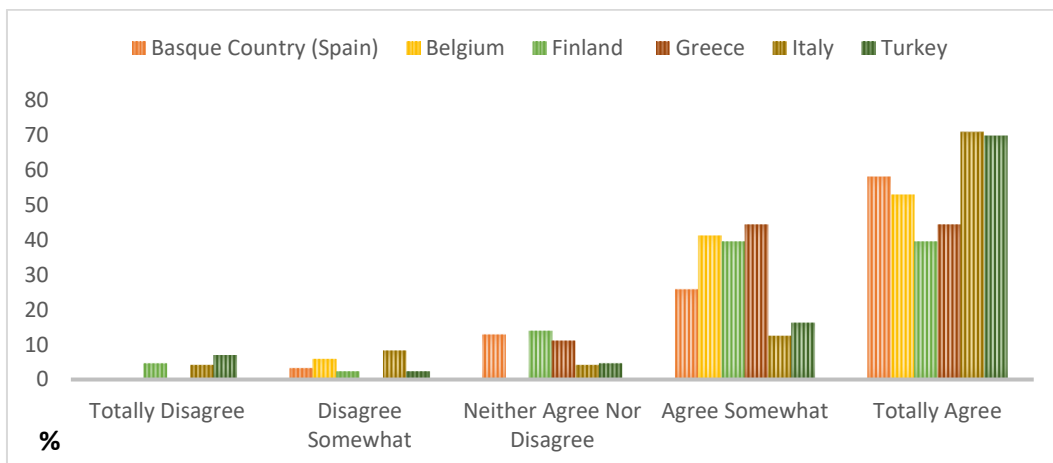


Figure 3.46. Distributions by Country for the Likert-scaled Item 3(g) I Remember to Switch off Lights When I Leave a Room

This item generated 167 valid responses, 1 missing,  $M = 4.31$ ,  $SD = 1.02$ . The majority of respondents are in agreement with the statement regardless of country.

3(h) I remember to switch off machines instead of leaving them on standby

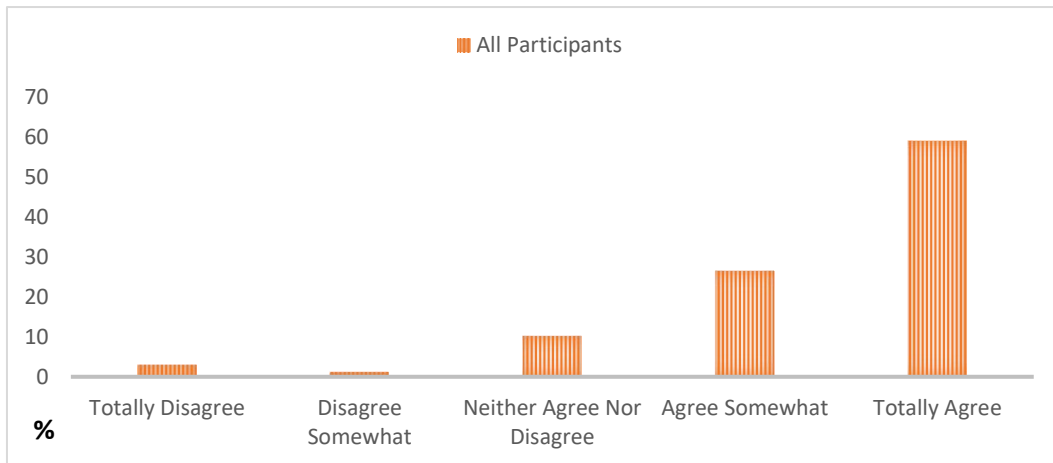


Figure 3.47. Distributions for the Likert-scaled Item 3(h) I Remember to Switch off Machines Instead of Leaving Them on Standby

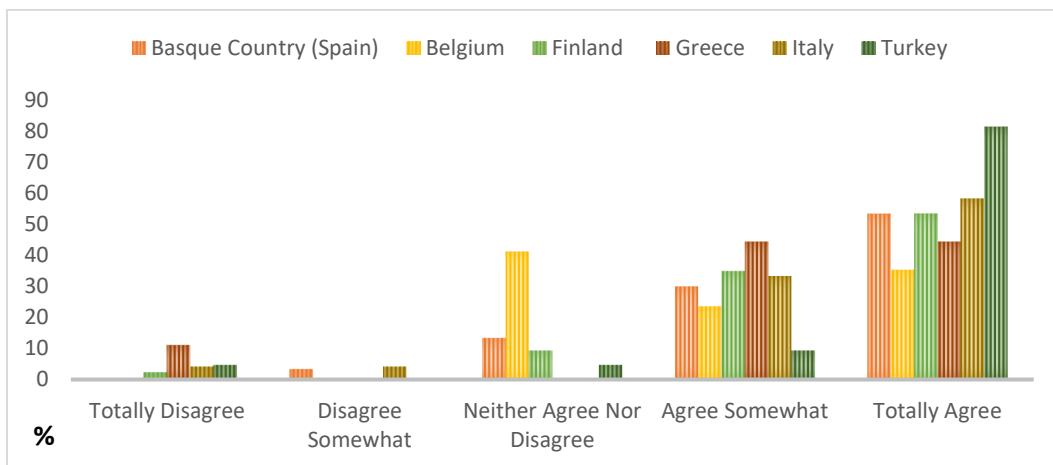


Figure 3.48. Distributions by Country for the Likert-scaled Item 3(h) I Remember to Switch off Machines Instead of Leaving Them on Standby

There were 166 valid responses for this item, 2 missing,  $M = 4.37$ ,  $SD = .94$ . Again, most respondents agree with the statement. For Belgium, 40% of respondents gave a neutral response to this statement.

3(i) I switch the water off when I clean my teeth

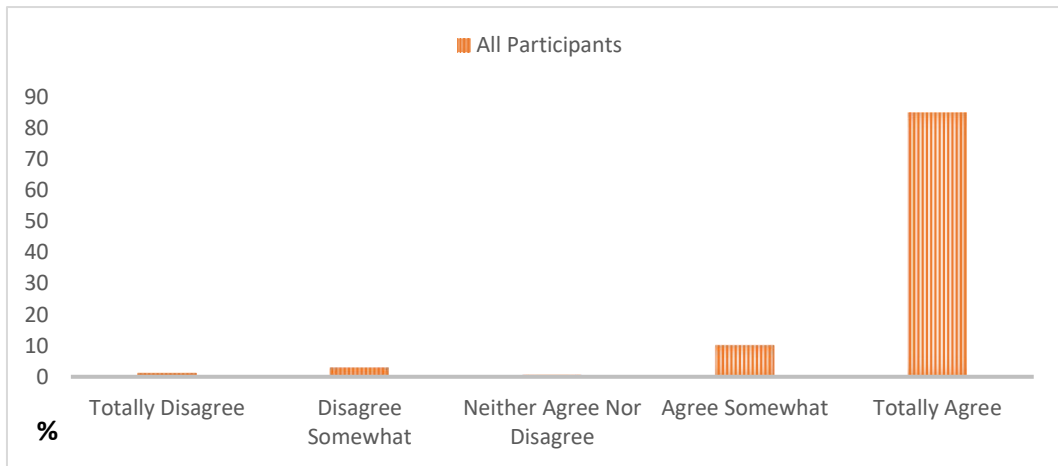


Figure 3.49. Distributions for the Likert-scaled Item 3(i) I Switch the Water off When I Clean My Teeth

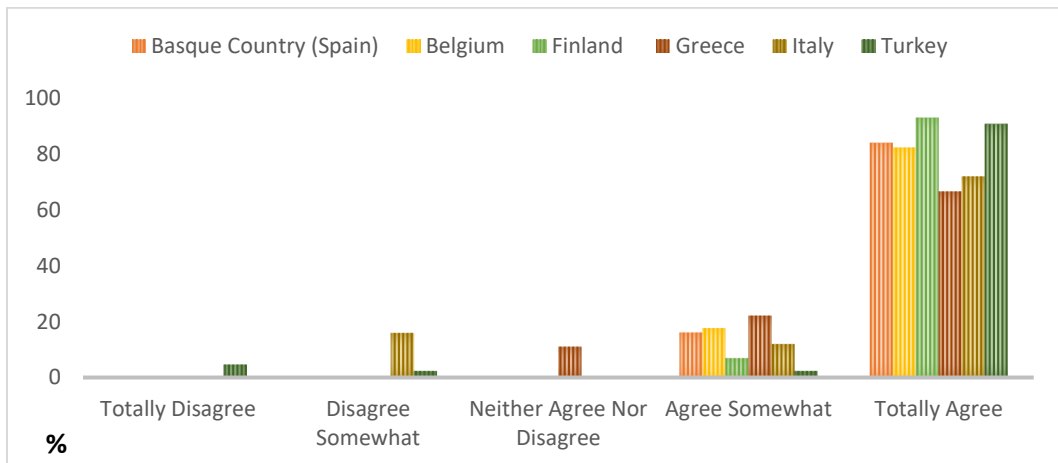


Figure 3.50. Distributions by Country for the Likert-scaled Item 3(i) I Switch the Water off When I Clean My Teeth

There were 168 valid responses to this item, 0 missing,  $M = 4.75$ ,  $SD = .72$ . This item generated the greatest percentage of agreement of this Likert Scale with more than 80% or all respondents in agreement.

3(j) I don't use too much water in the shower

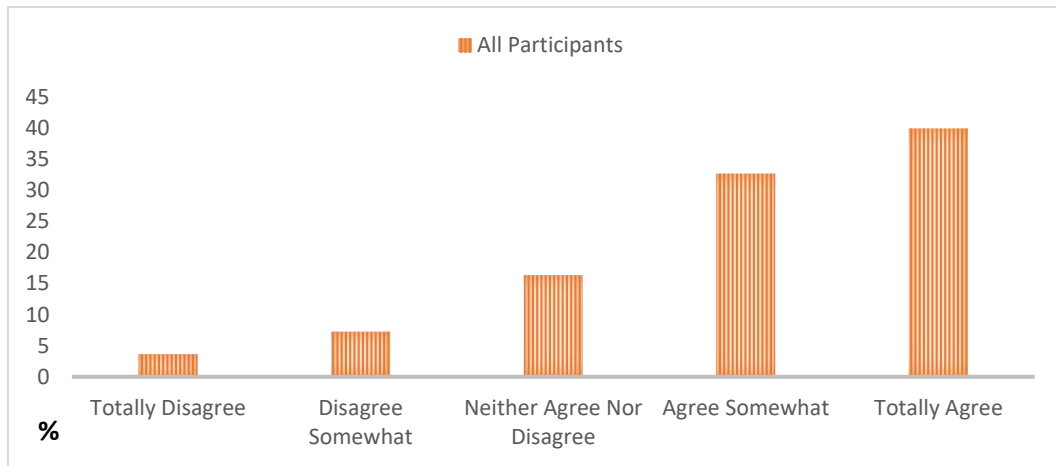


Figure 3.51. Distributions for the Likert-scaled Item 3(j) I Don't Use Too Much Water in the Shower

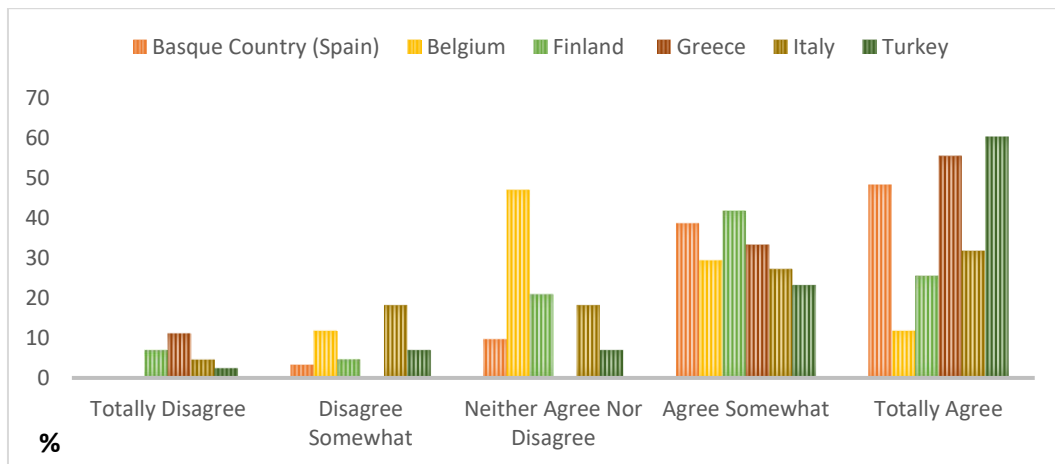


Figure 3.52. Distributions by Country for the Likert-scaled Item 3(j) I Don't Use Too Much Water in the Shower

This item generated 165 valid responses, 3 missing,  $M = 3.98$ ,  $SD = 1.09$ . While again, the majority are in agreement, the responses show that while the pupils say they save water while brushing their teeth, they are not as careful about saving water when using the shower.

3(k) I don't waste food

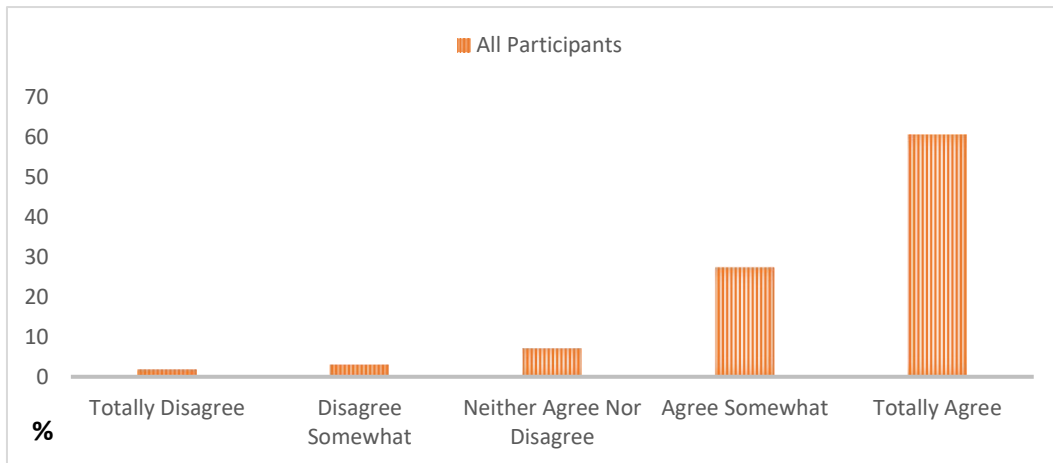


Figure 3.53. Distributions for the Likert-scaled Item 3(k) I Don't Waste Food

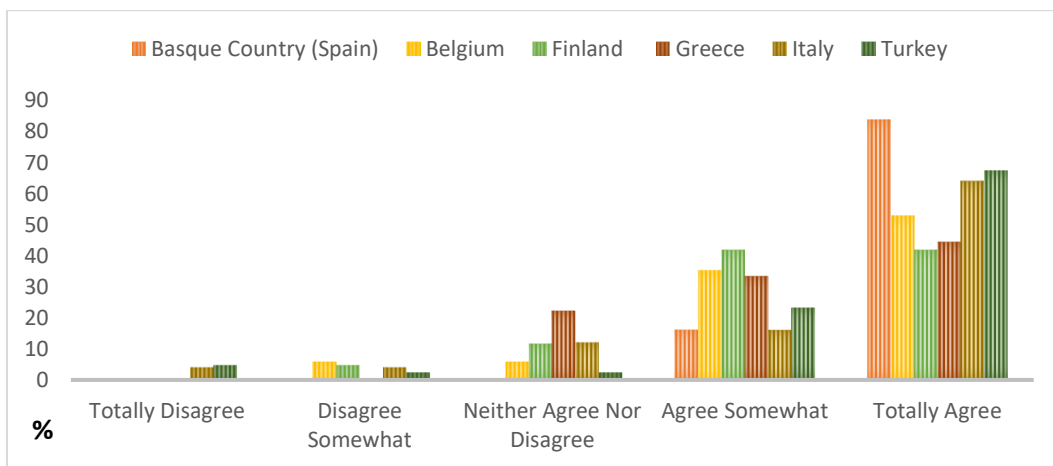


Figure 3.54. Distributions by Country for the Likert-scaled Item 3(k) I Don't Waste Food

There were 168 valid responses for this item, 0 missing,  $M = 4.42$ ,  $SD = .89$ . Again, the trend of agreement continues with the majority in accordance with the statement. The Basque Country stands out with 84% of respondents saying that they agreed totally.

3(1) I know that my lifestyle can affect the environment

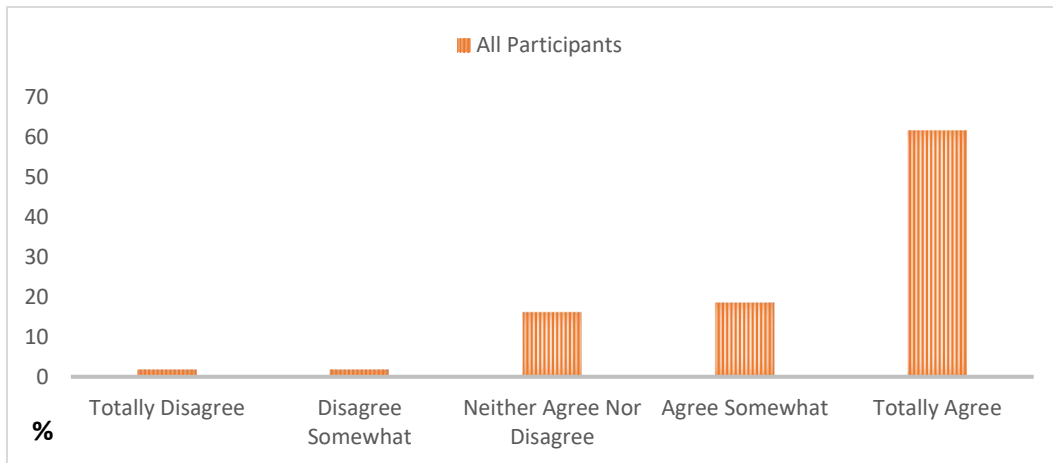


Figure 3.55. Distributions for the Likert-scaled Item 3(1) I Know That My Lifestyle Can Affect the Environment

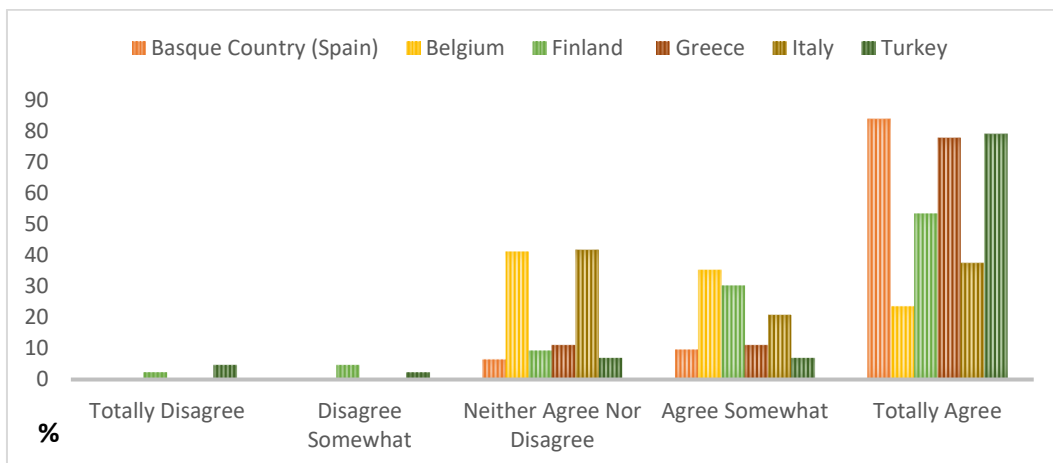


Figure 3.56. Distributions by Country for the Likert-scaled Item 3(1) I Know That My Lifestyle Can Affect the Environment

There were 167 valid responses for this item, 1 missing,  $M = 4.37$ ,  $SD = .94$ . The majority are again in agreement with the statement. Italy and Belgium both generated about 40% of neutral responses to this item.

In sum, the majority of respondents in each country are in accord with the basic principles of sustainability, all of which are part of the national curricula of their countries. The only area in which they appear less in agreement is using things that have belonged to other people, especially clothes.



### 3.4 Survey Area Four: Nature Discourses

The ongoing debate about whether the Oxford English Dictionaries were correct to remove nature words, for example, already demonstrates a decrease in nature discourses (Robbins 2015) and a decline in nature ideologies in some children's ways of being in the world. It is crucial to ensure that the natural world does not become a concrete concept only for children in rural areas and a mere abstract concept for those in urban areas and large cities. Discourses have been identified as a locus for ideologies (Blommaert 2005), and as ways of being in the world (Gee 2015). They involve the social construction of reality through language in the form of communicative units used by people as social members of collectivities in their historical, social, and cultural practices (Jalkanen 2017). An ideology may be the product of a comprehensive and explicit framework, or the less-organized, shared axiomatic beliefs of social groups manifest at the micro-level of society as various kinds of local social practice (Gee 2015, van Dijk 2006, Jalkanen 2017). These beliefs are held as the norm and as a simplified framework for making sense of the world. There is a risk that, if the natural world has no real meaning, people will have less of a connection with it and its value to them is diminished.

Respondents were asked to rate a series of six statements based on how much they disagreed or agreed on the statement with regard to nature discourses. The options were: Totally Disagree; Disagree Somewhat; Neither Disagree nor Agree; Agree Somewhat; Totally Agree. The missing data that are reported are random missing data. Each statement constituted one Likert-scaled item, and collectively they constituted a summative Likert Scale. This scale appeared to have internal consistency that is good,  $\alpha = .79$ . All items seem to be worthy of retention. The six Likert-scaled items are:

- (a) I can name many of the animals in my local environment
- (b) I can name many of the plants in my local environment
- (c) I can explain things related to Nature and the environment
- (d) It is important to have words to talk about Nature and the environment
- (e) I like to learn about Nature and the environment
- (f) I want to learn more about Nature and the environment

4(a) I can name many of the animals in my local environment

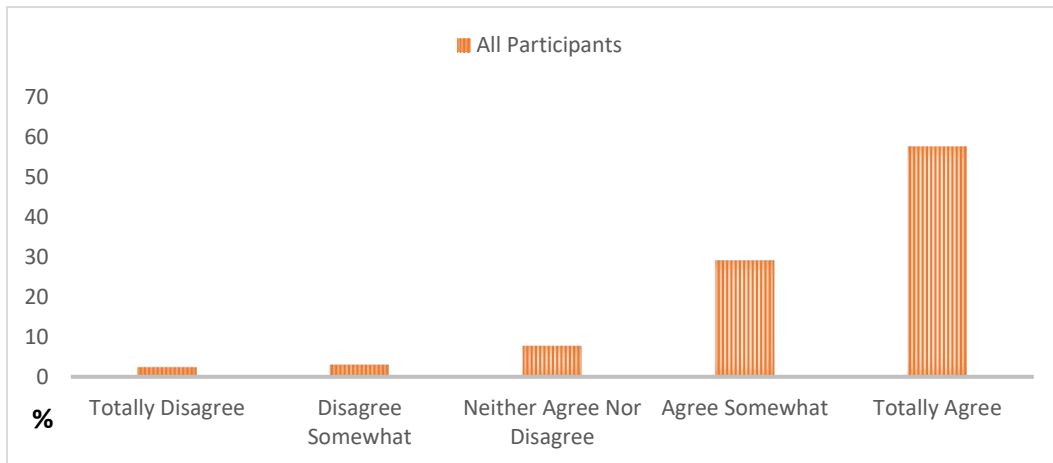


Figure 3.57. Distributions for the Likert-scaled Item 4(a) I Can Name Many of the Animals in My Local Environment

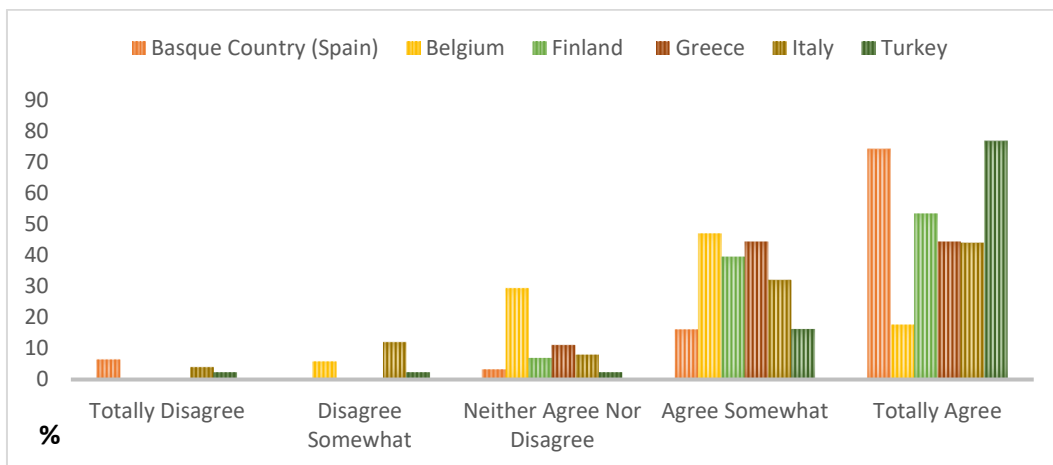


Figure 3.58. Distributions by Country for the Likert-scaled Item 4(a) I Can Name Many of the Animals in My Local Environment

There were 168 valid responses for this item, 0 missing,  $M = 4.37$ ,  $SD = .93$ . The majority of respondents were in accord with the statement. About a third of the Belgian respondents, however, chose a neutral response.

4(b) I can name many of the plants in my local environment

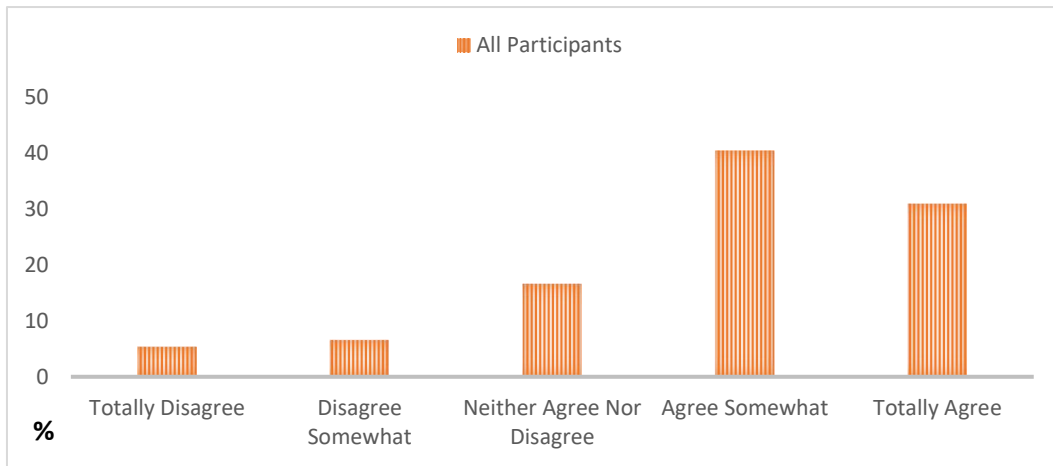


Figure 3.59. Distributions for the Likert-scaled Item 4(b) I Can Name Many of the Plants in My Local Environment

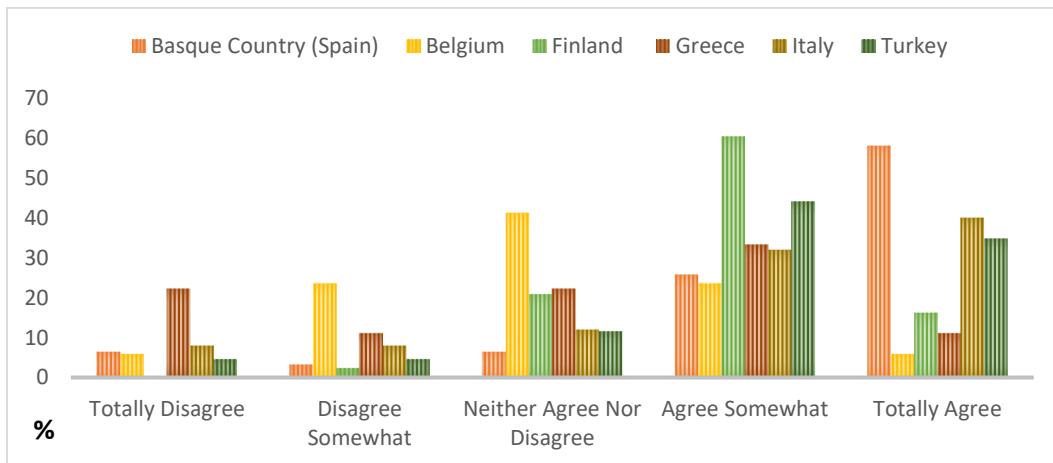


Figure 3.60. Distributions by Country for the Likert-scaled Item 4(b) I Can Name Many of the Plants in My Local Environment

There were 168 valid responses for this item, 0 missing,  $M = 3.85$ ,  $SD = 1.10$ . Although the general trend was to be in accord with the statement, there was greater disagreement and less total agreement for naming plants when compared to the previous item and naming animals. There were also more neutral responses from all countries. The greatest confidence in naming plants in the local environment seems to be in the Basque Country.

4(c) I can explain things related to Nature and the environment

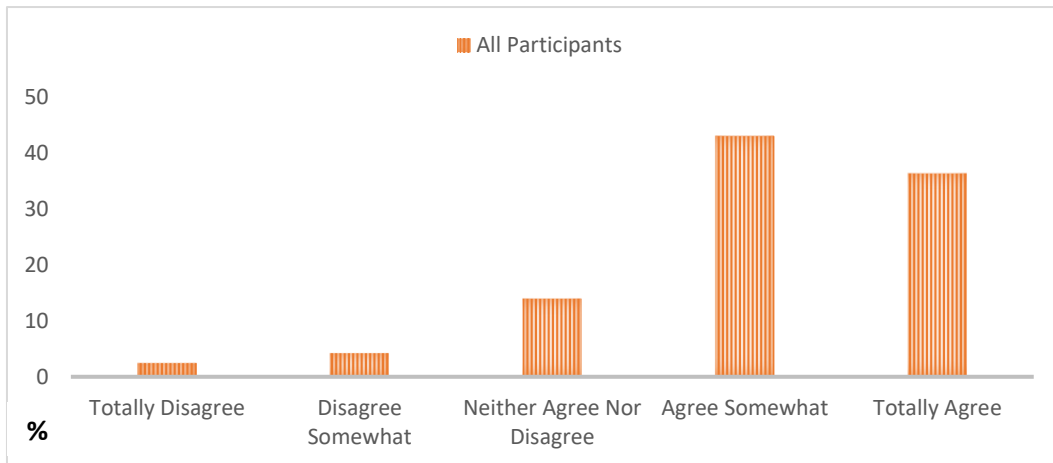


Figure 3.61. Distributions for the Likert-scaled Item 4(c) I Can Explain Things Related to Nature and the Environment

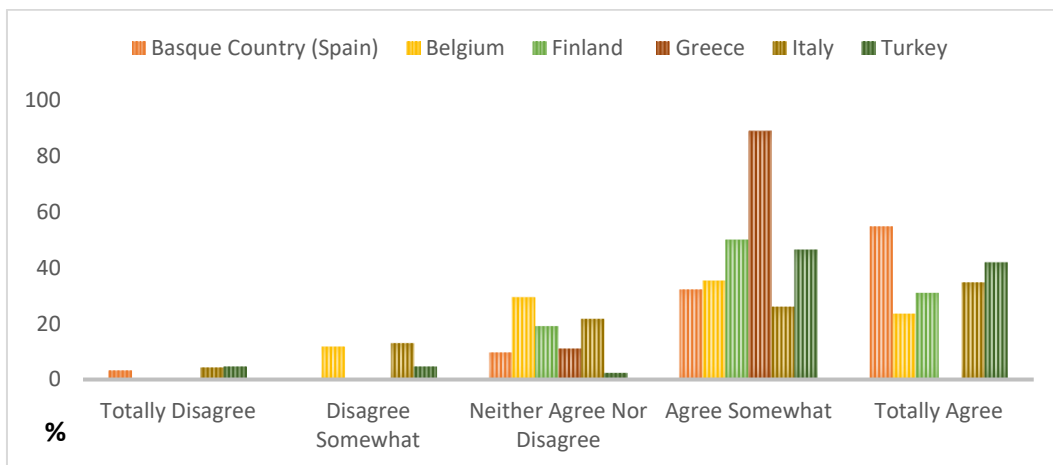


Figure 3.62. Distributions by Country for the Likert-scaled Item 4(c) I Can Explain Things Related to Nature and the Environment

There were 165 valid responses for this item, 3 missing,  $M = 4.07$ ,  $SD = .94$ . The trend of agreement remains the same, but there is less total agreement. Italy stands out from the other countries for this item, with no pupils in total agreement with the statement.

4(d) It is important to have words to talk about Nature and the environment

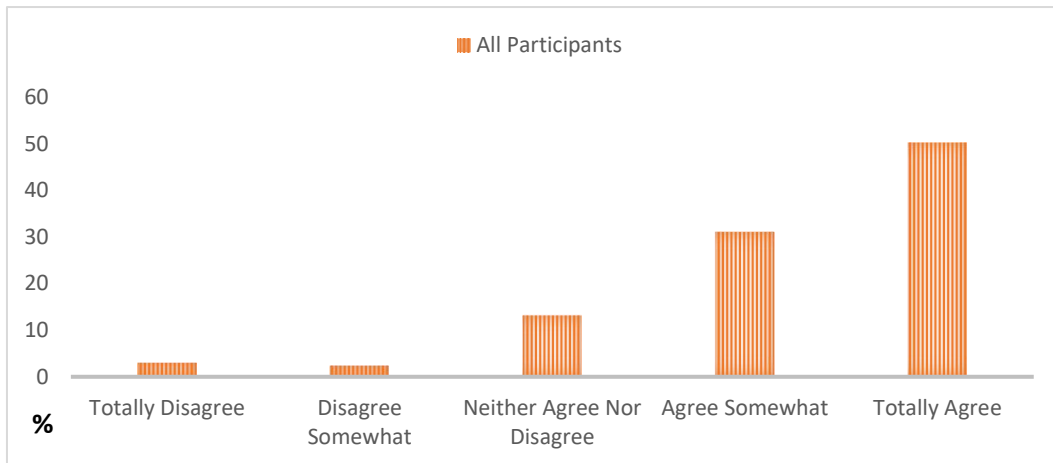


Figure 3.63. Distributions for the Likert-scaled Item 4(d) It is Important to Have Words to Talk about Nature and the Environment

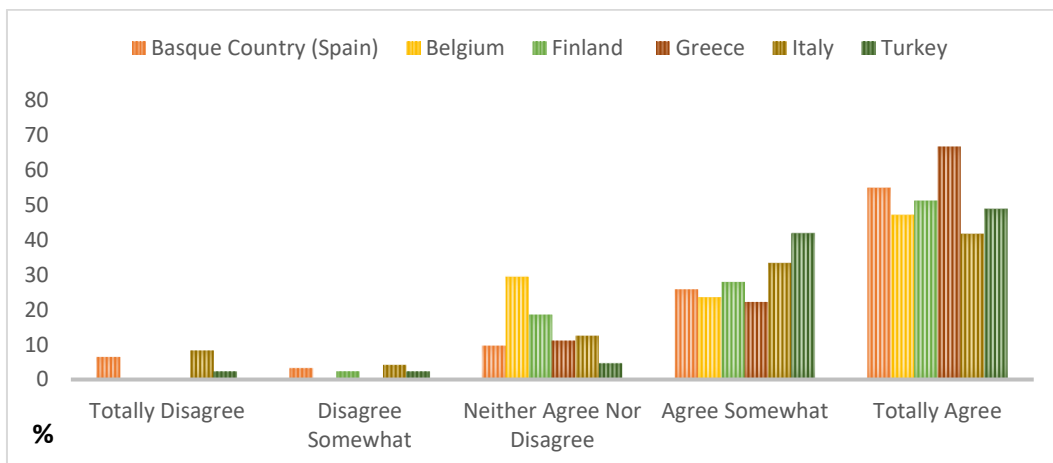


Figure 3.64. Distributions by Country for the Likert-scaled Item 4(d) It is Important to Have Words to Talk about Nature and the Environment

There were 167 valid responses for this item, 1 missing,  $M = 4.23$ ,  $SD = .98$ . The respondents were mainly in accord with this statement irrespective of country. A third of Belgian respondents chose a neutral response.

4(e) I like to learn about Nature and the environment

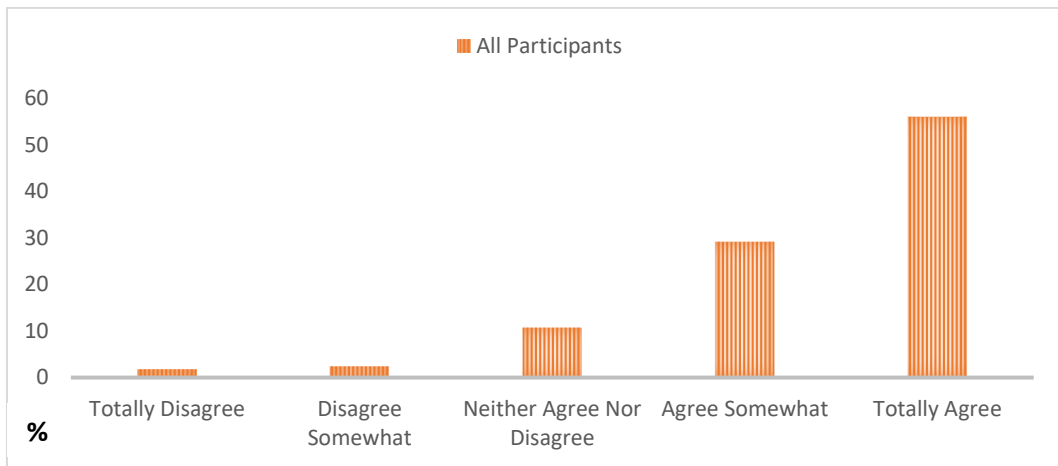


Figure 3.65. Distributions for the Likert-scaled Item 4(e) I Like to Learn about Nature and the Environment

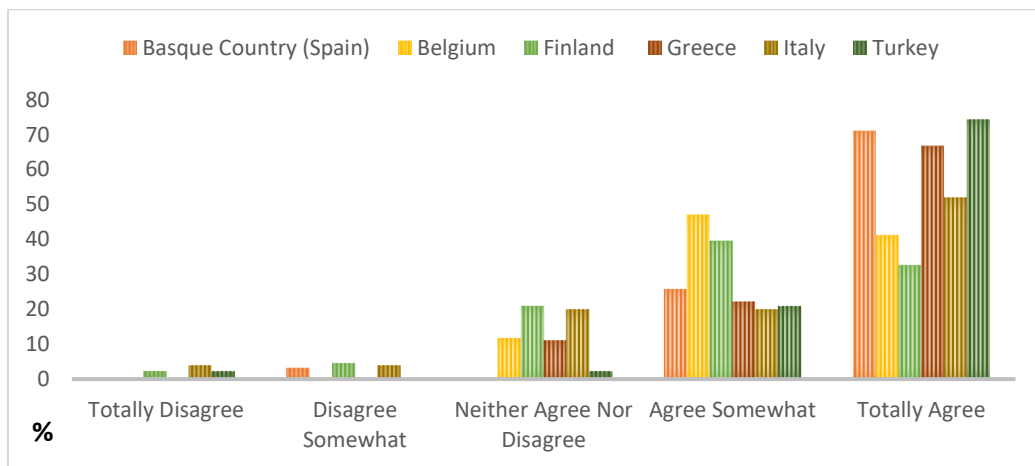


Figure 3.66. Distributions by Country for the Likert-scaled Item 4(e) I Like to Learn about Nature and the Environment

There were 168 valid responses for this item, 0 missing,  $M = 4.35$ ,  $SD = .90$ . The majority of respondents totally agree that they like to learn about Nature and the environment.

4(f) I want to learn more about Nature and the environment

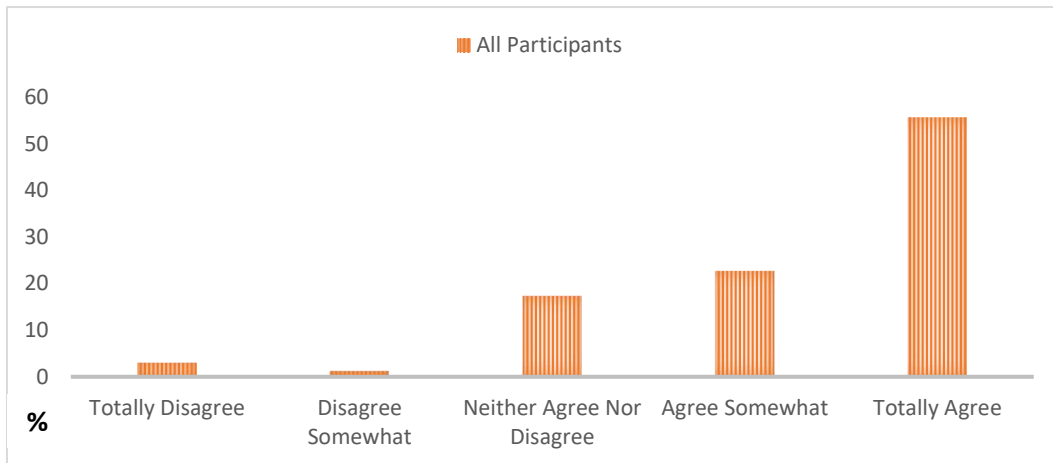


Figure 3.67. Distributions for the Likert-scaled Item 4(f) I Want to Learn More about Nature and the Environment

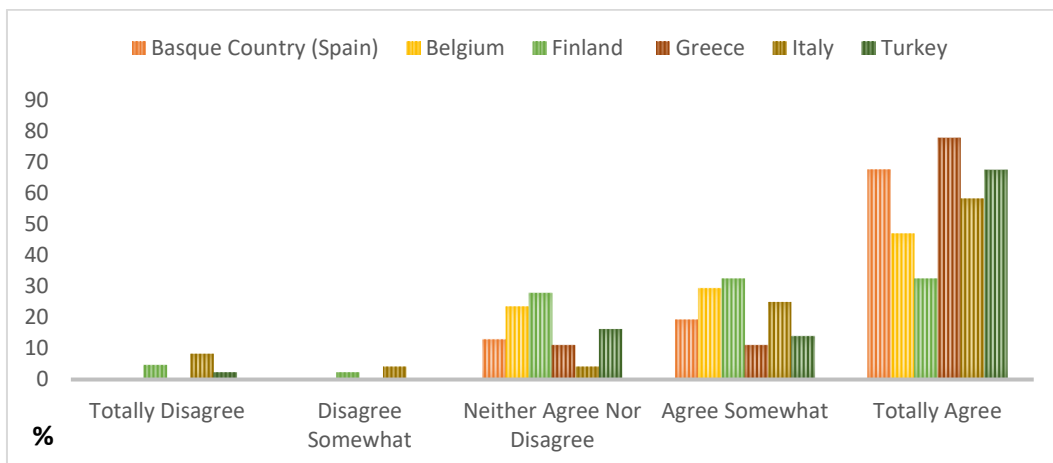


Figure 3.68. Distributions by Country for the Likert-scaled Item 4(f) I Want to Learn More about Nature and the Environment

There were 167 valid responses for this item, 1 missing,  $M = 4.27$ ,  $SD = .99$ . The majority of respondents totally agree that they want to learn more about Nature and the environment.

In sum, the respondents accord with the statements shows that the majority realise the importance of nature discourses and having words to discuss Nature. The pupils felt more confident about naming animals than plants in their local environments. The majority like to learn about Nature and want to learn more about it.

### 3.5 Survey Area Five: Transnational Community of Practice

The impact of human activities on our planet's natural systems has been intensifying rapidly in the past several decades, leading to disruption and transformation of most natural systems. These disruptions in the atmosphere, oceans, and across the terrestrial land surface are not only driving species to extinction (Davidson *et al.* 2017), they pose serious threats to human health and wellbeing (Berry, Bowen, & Kjellstrom 2010). Depending on the specific geographical location of a country, children may be directly affected by environmental issues to a lesser or greater degree. This may leave some young people globally isolated or 'insulated' from specific environmental issues which affect the day-to-day life of other young people. Such insulation may contribute to a feeling of 'this is not relevant to me'. It becomes especially important for children to see beyond their local environment and be able to cultivate a sense of communal global responsibility, since they are likely to be affected by the consequences of climate change in other countries in the future, such as mass migration. Creating opportunities to facilitate the development of global solidarity may help to mitigate some of the problems and issues, for example, concerning future migration scenarios.

With this in mind, another pillar of the project was to develop shared values and ideologies to form a community of practice (school) with a view to fostering awareness and developing responsibility. This was referred to as the Transnational Level and had three components:

- (1) The shared responsibility for our Earth unites us (I am part of a bigger community);
- (2) Crossing borders makes this concrete and offers a broader worldview;
- (3) Global communities of practice – sharing our values and ideologies at a transnational level.

This scale was designed to investigate whether or not the pupils at the individual schools actually felt they were part of something larger than their local communities and how much they felt connected to the world. Respondents were asked to rate a series of seven statements based on how much they disagreed or agreed on the statement with regard to matters linked with being part of a global or transnational community. The options were: Totally Disagree; Disagree Somewhat; Neither Disagree nor Agree; Agree Somewhat; Totally Agree. The missing data that are reported are random missing data. Each statement constituted one Likert-scaled item, and collectively they constituted a summative Likert Scale. This scale appeared to have internal consistency that is good,  $\alpha = .82$ . All items seem to be worthy of retention.



The seven Likert-scaled items are:

- (a) The Earth is important to me
- (b) I am interested in other countries
- (c) I am interested in people from other countries
- (d) I want to learn more about things in other countries
- (e) I care that things that happen far away can have an effect on me
- (f) I feel that I am part of a global community
- (g) I feel that I am a citizen of the world

5(a) The Earth is important to me

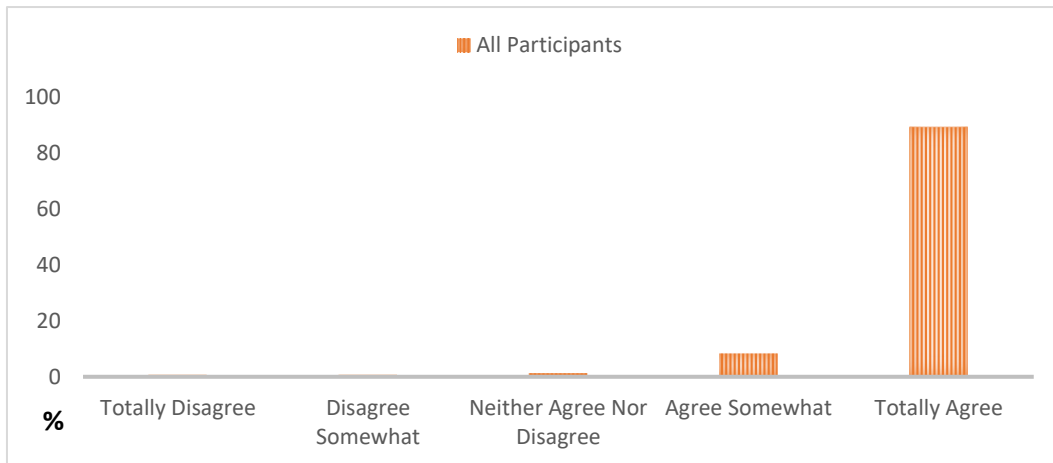


Figure 3.69. Distributions for the Likert-scaled Item 5(a) The Earth is Important to Me

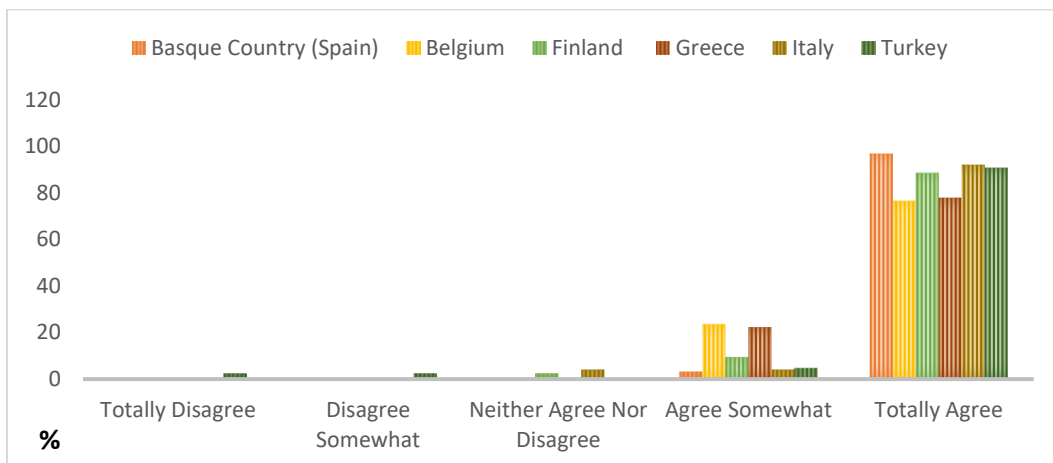


Figure 3.70. Distributions by Country for the Likert-scaled Item 5(a) The Earth is Important to Me

There were 168 valid responses for this item, 0 missing,  $M = 4.85$ ,  $SD = .51$ . Ninety per cent of the respondents are in total agreement with the statement. This item generated the greatest percentage of total agreement of any item in the survey.

5(b) I am interested in other countries

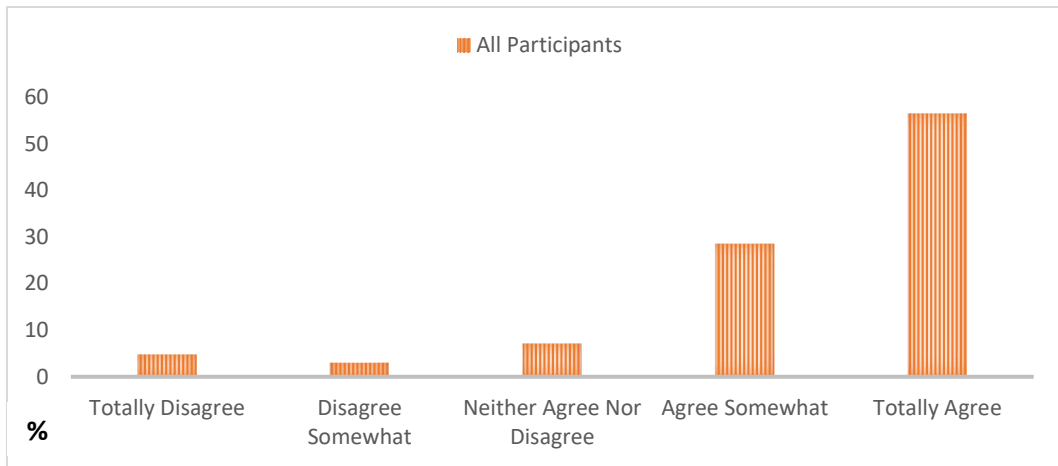


Figure 3.71. Distributions for the Likert-scaled Item 5(b) I am Interested in Other Countries

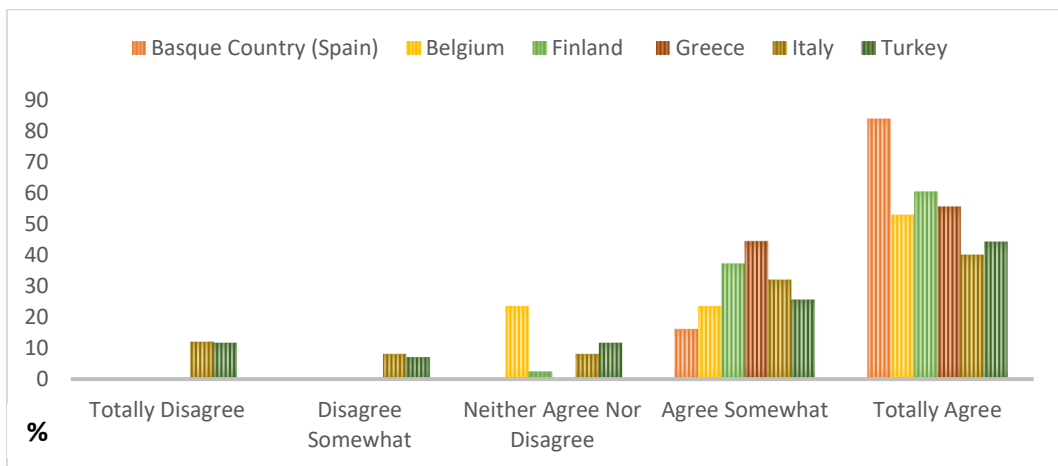


Figure 3.72. Distributions by Country for the Likert-scaled Item 5(b) I am Interested in Other Countries

This item generated 168 valid responses, 0 missing,  $M = 4.29$ ,  $SD = 1.05$ . The majority are in agreement irrespective of country, with the Basque Country with the greatest percentage of total agreement.

5(c) I am interested in people from other countries

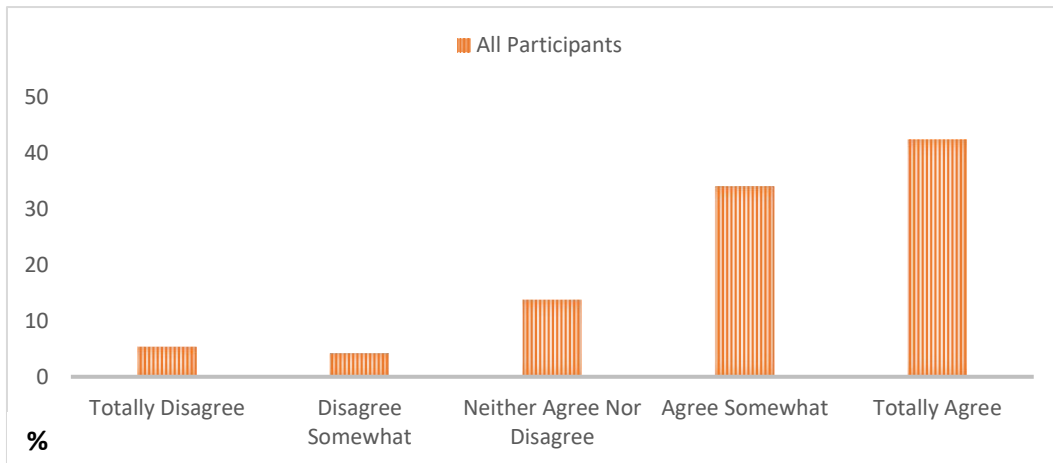


Figure 3.73. Distributions for the Likert-scaled Item 5(c) I am Interested in People from Other Countries

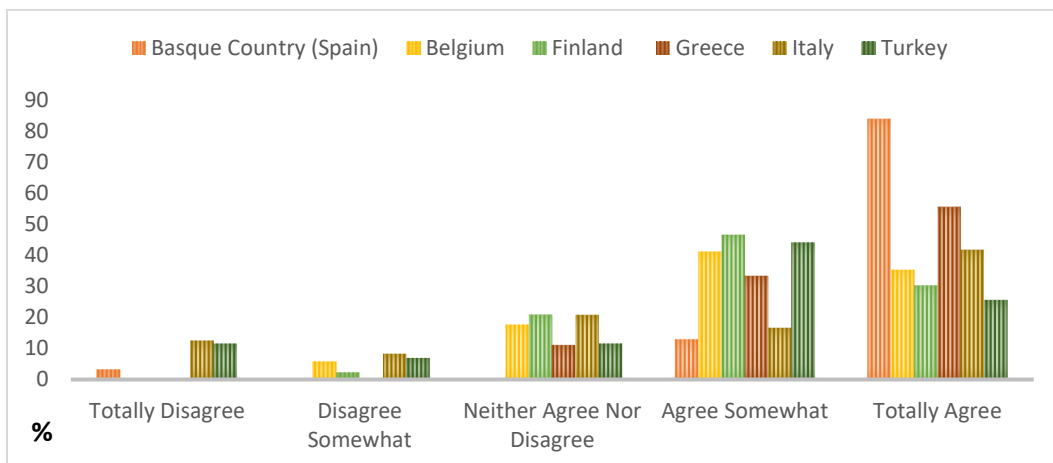


Figure 3.74. Distributions by Country for the Likert-scaled Item 5(c) I am Interested in People from other Countries

There were 167 valid responses to this item, 1 missing,  $M = 4.04$ ,  $SD = 1.11$ . The majority are in agreement irrespective of country, with the Basque Country with the greatest percentage of total agreement.

5(d) I want to learn more about things in other countries

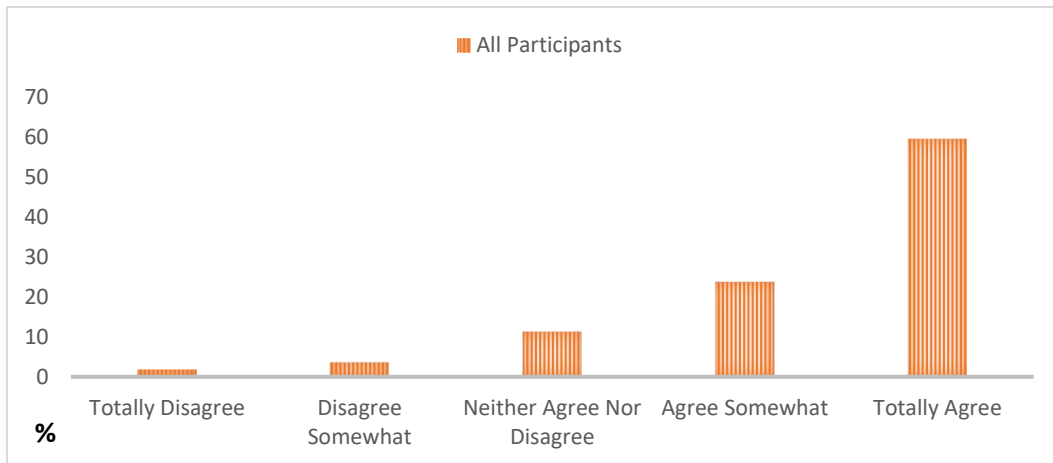


Figure 3.75. Distributions for the Likert-scaled Item 5(d) I Want to Learn More about Things in Other Countries

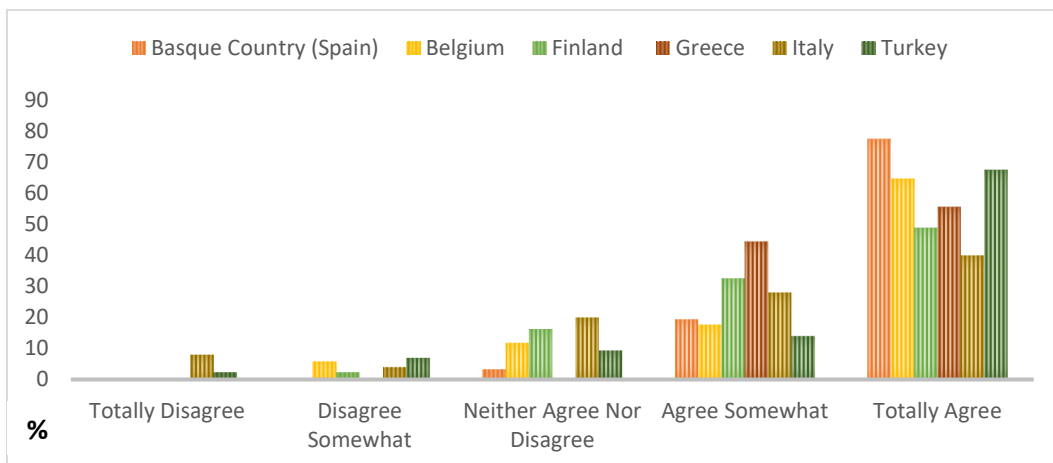


Figure 3.76. Distributions by Country for the Likert-scaled Item 5(d) I Want to Learn More about Things in Other Countries

There were 168 for this item, 0 missing,  $M = 4.36$ ,  $SD = .94$ . The majority are in agreement irrespective of country, showing that the respondents have an interest in matters concerning other countries.

5(e) I care that things that happen far away can have an effect on me

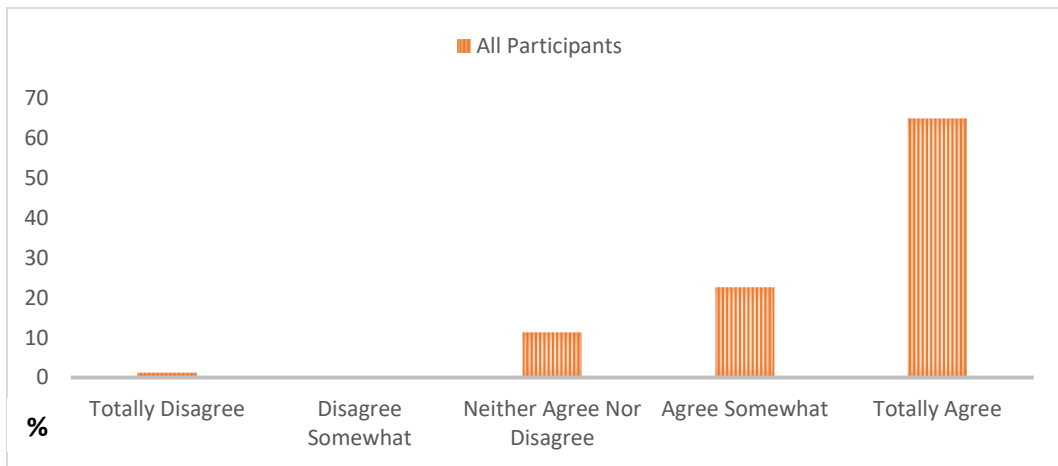


Figure 3.77. Distributions for the Likert-scaled Item 5(e) I Care That Things That Happen Far Away Can Have an Effect on Me

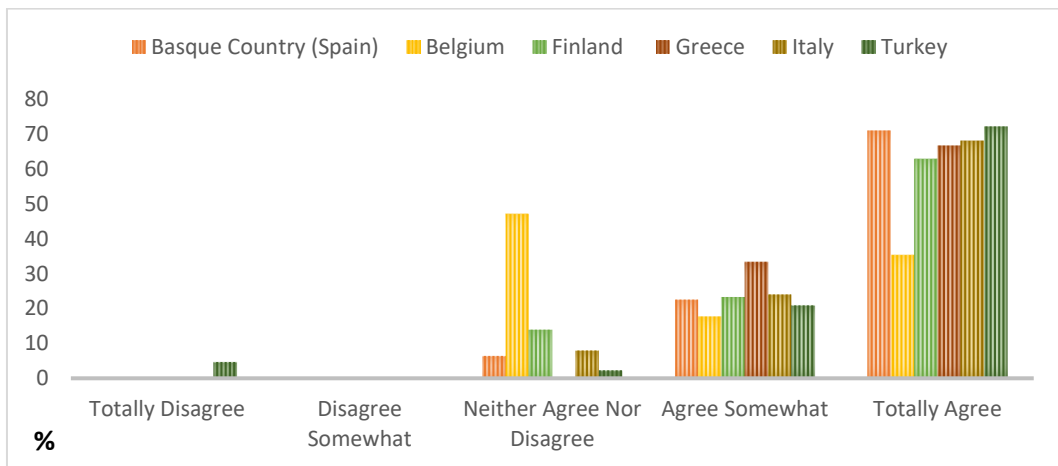


Figure 3.78. Distributions by Country for the Likert-scaled Item 5(e) I Care That Things That Happen Far Away Can Have an Effect on Me

There were 168 valid responses for this item, 0 missing,  $M = 4.50$ ,  $SD = .79$ . The majority were in strong agreement with this statement. Belgium stands out with about 50% of the respondents choosing the neutral response.

5(f) I feel that I am part of a global community

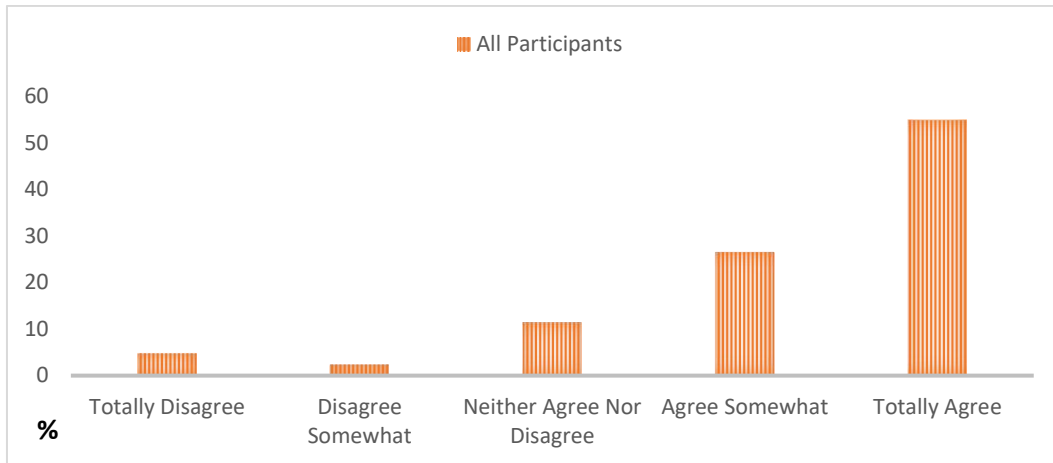


Figure 3.79. Distributions for the Likert-scaled Item 5(f) I Feel That I am Part of a Global Community

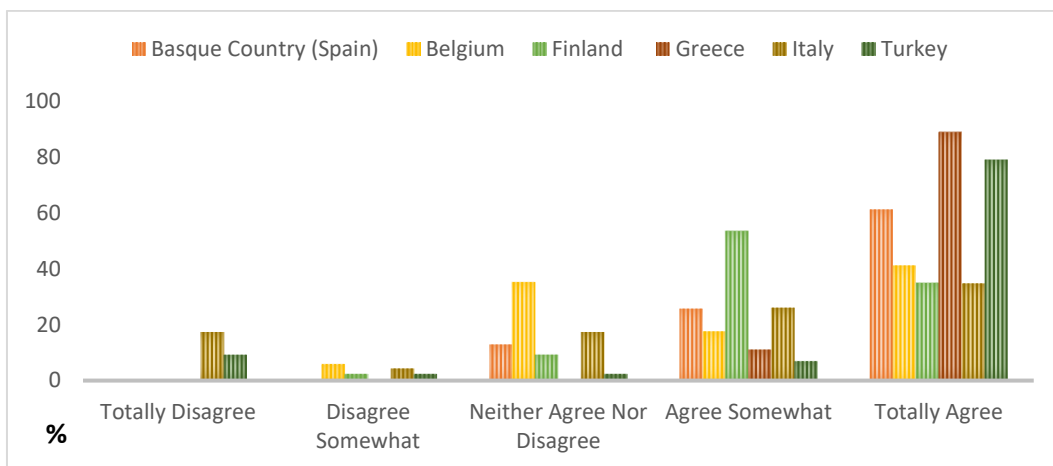


Figure 3.80. Distributions by Country for the Likert-scaled Item 5(f) I Feel That I am Part of a Global Community

This item generated 166 valid responses, 2 missing,  $M = 4.24$ ,  $SD = 1.07$ . The general trend of agreement continues for this statement with the most total agreement from Turkish respondents.

5(g) I feel that I am a citizen of the world

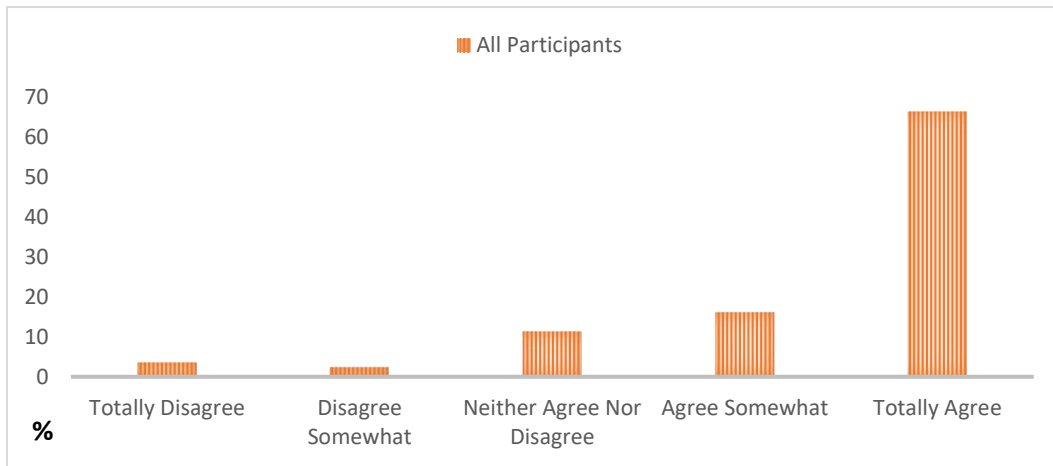


Figure 3.81. Distributions for the Likert-scaled Item 5(g) I Feel That I am a Citizen of the World

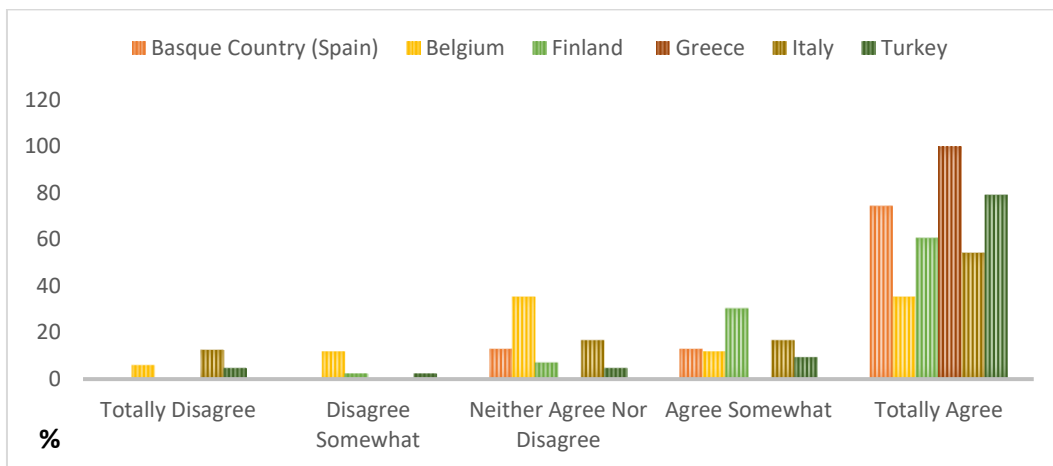


Figure 3.82. Distributions by Country for the Likert-scaled Item 5(g) I Feel That I am a Citizen of the World

There were 167 valid responses for this item, 1 missing,  $M = 4.40$ ,  $SD = 1.02$ . Although the sentiment of the statement is similar to the previous item, the distributions are different in that this item generated more confident agreement with more respondents choosing total agreement.

In sum, these pupils mostly seem to feel that they are part of a transnational community of practise. The majority are interested in other people and countries and want to learn more. The terminology



may have been a little tricky for them as more were more confident agreeing with being a citizen of the world than belonging to a global community.

#### 4. CONCLUSIONS

The results of the survey are very positive. The majority of respondents in all countries were in agreement with all of the statements in all of the areas. The differences in the number of participants from each country makes it difficult to make comparisons, for example, there were only nine respondents from Greece compared to 43 from both Finland and Turkey. The survey was administered several months into the project: for the Basque Country, Italy, and Finland it was seven months into the project and for the other countries, it was over a year into the project. Two major factors affected the timetable: the enormity of teachers developing the survey instrument alongside full time teaching and the Covid 19 Pandemic.

The local environments varied among the respondent countries. Pupils in the Basque Country, Belgium and Finland come from less urban and more rural areas, while the pupils in Greece, Italy, and Turkey came from more urban areas. The Greek and Italian pupils live in the capital city, so a very urban environment. It is clear from the results, however, that, despite the differences among the local environments, most of the pupils who participated in the survey feel that their local environment is important to them and that they have an attachment to it. Around 80% of respondents spend time outside in their local environment and enjoy doing so. A similar number feel that they can manage with confidence in their local environment and that it represents home to them. Given these largely positive responses, the majority of pupils across the partner countries appear to be involved with and have developed an affiliation with their local environment that, according to previous research and owing to highlighting these issues in the current project, is likely to increase their motivation also to be involved in matters connected to the environment at the global level.

The local environment is the closest space to the individual, while Nature represents a larger and more abstract entity. Over 80% of the respondents stated that they were in total agreement that Nature is important to them regardless of country. There was a greater distribution of responses for feeling an attachment to Nature. Thus, it appears that a lack of attachment to it does not seem to impact on the importance of Nature to the respondents. The trend for cherishing Nature continues with agreement, but less strong in Belgium and Finland. The majority of respondents feel that it is important to them to spend time outside in Nature and they enjoy it. There is less agreement for being able to manage with confidence in Nature, with Finland having the greatest percentage of total agreement (>70%). Around 90% of the pupils stated that they feel good when they are out in Nature, with a similar percentage agreeing that they respect Nature. Eighty per cent agreed that their family makes use of the fruits of nature regardless of country, while over 90% agreed that being outside in

Nature is good for people. In sum, the majority of pupils appear to have a good awareness of the importance of Nature to people and have experienced the benefits of being out in Nature that are important to human wellbeing.

Environmental issues are generally a part of the national curricula of countries and are largely concerned with sustainability. The positive trend continued with over 80% agreeing that they recycled rubbish/garbage at home and away from home. There was less agreement (<60) about minding using items and clothes that other people have owned. Agreement dropped to around 70% for walking or cycling to school, or using public transport, but given the types of local environment, this may be affected, for example, by living in a big city or proximity of the school in the case of the Belgian complete lack of agreement. Over 80% of pupils were in agreement about remembering to turn off the lights and to switch off machines. Around 90% of respondents stated that they switched off the water when they cleaned their teeth, but this dropped for not using too much water in the shower. The majority in each country stated that they do not waste food, and they are aware that their lifestyle can affect the environment. According to the survey response, the majority of pupils are aware of the principles of sustainability and implement them in their daily life. This is an encouraging result as it seems to show that the sustainability criteria taught in the national curricula of the schools involved has increased the pupils' awareness and had an impact on their carbon footprint. This shows that the society is responding to minimal or no wastage of food as this topic is increasingly being stressed in research related to the impact of human behavioural changes on food security in EU Green Deal funding calls.

Having the language to describe, discuss, and understand the environment and environmental concepts gives more meaning to the natural world, and one aspect of the project is to make Nature Discourse relevant also in urban contexts. The results show that the majority of respondents in each country feel that it is important to have words to discuss Nature and their environment. They are able to name the animals and plants in their local environments: with more total agreement for animals than for plants. The majority of respondents also felt that they are able to explain things related to Nature and the environment and they like to learn about them. Wanting to learn more about Nature and the environment followed the same trend of agreement, but there were slightly more neutral responses. It is encouraging to see that most pupils felt the importance of Nature Discourses and liked learning about Nature and the environment. This again demonstrates that Nature and environment are important to them and they are happy to learn about them. The Italian and Greek responses were especially encouraging since these were the pupils who lived in the most urban environments. It is impossible to say whether this is because the pupils attend schools who place value on the

environment. This notwithstanding, it shows that at least some urban pupils place as much value on Nature and the environment as those pupils from more rural areas.

Almost all of the respondents agreed that the Earth was important to them, with 90% in total agreement. There was some disagreement from Italy and Turkey, and some neutral responses from Belgium about pupils being interested in other countries, but the majority of respondents in each country agreed that they were interested. There were more neutral responses about interest in people from other countries, but the trend of agreement of the majority continued. More respondents agreed that they want to learn more about things in other countries. All of the countries except for Belgium had a majority of respondents who were in agreement that they cared that the things that happen far away can have an effect on them. Forty per cent of the Belgian respondents chose the neutral response for this item. Most of the respondents in each country agree that they feel part of a global community and a citizen of the world. These results are encouraging, and show that the pupils are aware of and interested in things beyond their local environment and home country. They do not, however, show us how much this aged pupil understands about issues such as global warming or social migration. There is a strong need to continue such research activities involving more diverse groups of respondents to capture of a snapshot of the societal understanding of the complex natural phenomena such as climate change.

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## Appendix 1

### Full GEAR Survey Instrument Items in English

#### Relationship with Own Local Environment

1. The following are a series of statements that concern what your local environment means to you. How much do you agree or disagree with them?

	1 Totally disagree	2 Disagree somewhat	3 Neither disagree nor agree	4 Agree somewhat	5 Totally agree
a. My local environment is important to me.					
b. I feel attached to my local environment.					
c. I spend time outside in my local environment.					
d. I enjoy spending time outside in my local environment.					
e. I can manage with confidence in my local environment.					
f. My local environment represents home to me.					

2. List words that describe how you feel about your local environment. You can mark + if this is a positive word/phrase for you and – if it is a negative one.

		+	-
1			
2			
3			
4			
5			

#### Nature

3. The following are a series of statements that concern what Nature means to you. How much do you agree or disagree with them?

	1 Totally disagree	2 Disagree somewhat	3 Neither disagree nor agree	4 Agree somewhat	5 Totally agree
a. Nature is important to me.					
b. I feel attached to Nature.					
c. I cherish Nature.					
d. It is important to me to spend time outside in Nature.					
e. I enjoy spending time outside in Nature.					
f. I can manage with confidence in Nature.					
g. I feel good when I am out in Nature.					
h. I respect Nature.					
i. My family makes use of the fruits of Nature.					
j. Being outside in Nature is good for people.					

## Environmental Issues

4. The following are a series of statements that concern what environmental issues mean to you. How much do you agree or disagree with them?

	1 Totally disagree	2 Disagree somewhat	3 Neither disagree nor agree	4 Agree somewhat	5 Totally agree
(m) I recycle rubbish actively at home.					
(n) I recycle rubbish even when I am not at home (e.g. at school, when visiting others, outside).					
(o) I don't mind using things that have been owned by somebody else.					
(p) I don't mind wearing clothes that have been owned by somebody else.					
(q) When possible, I walk or cycle to school.					
(r) When possible, I use public transport instead of the car.					
(s) I remember to switch off lights when I leave a room.					
(t) I remember to switch off machines instead of leaving them on standby.					
(u) I switch the water off when I clean my teeth.					
(v) I don't use too much water in the shower.					
(w) I don't waste food.					
<i>I care about environmental problems.</i>					
(x) I know that my lifestyle can affect the environment.					

## Nature Discourses

5. The following are a series of statements that concern how much you know about Nature and the environment. How much do you agree or disagree with them?

	1 Totally disagree	2 Disagree somewhat	3 Neither disagree nor agree	4 Agree somewhat	5 Totally agree
a. I can name many of the animals in my local environment.					
b. I can name many of the plants in my local environment.					
c. I can explain things related to Nature and the environment.					
d. It is important to have words to talk about Nature and the environment.					
e. I like to learn about Nature and the environment.					
f. I want to learn more about Nature and the environment.					

**Transnational Community of Practice**

**6. The following are a series of statements that concern how much you feel part of a bigger, global community. How much do you agree or disagree with them?**

	<b>1 Totally disagree</b>	<b>2 Disagree somewhat</b>	<b>3 Neither disagree nor agree</b>	<b>4 Agree somewhat</b>	<b>5 Totally agree</b>
a. The Earth is important to me.					
b. I am interested in other countries.					
c. I am interested in people from other countries.					
d. I want to learn more about things in other countries.					
e. I care that things that happen far away can have an effect on me.					
f. I feel that I am part of a global community.					
g. I feel that I am a citizen of the world.					

**7. List words or short phrases that describe what Nature and the environment mean to you. You can mark + if this is a positive word/phrase for you and – if it is a negative one.**

		<b>+</b>	<b>-</b>
1			
2			
3			
4			
5			