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Environmental Education, an Essential Instrument to Implement the Sustainable Development Goals in the University Context

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Abstract: The objective of this research is the analysis of sustainable development's incorporation of the Sustainable Development Goals (SDGs) in the university from the environmental education approach. The study includes the necessary strategy to implement environmental contents, as well as the training of individuals to act with environmental responsibility. The descriptive, cross-sectional and quantitative methodology was used to create a questionnaire for university students. Then, we gathered data to achieve the goals proposed in this research: interpret the variations in environmental knowledge and behavior, and understand the conceptual aspects underlying in the students' features, paying attention to the differences between men and women. The results show that many of the students have previous concepts about the environment, and they consider that environmental education is required to solve environmental issues. Finally, a training proposal is presented to introduce the topics of the SDGs and environmental education in the university.

Keywords: environmental education; sustainable development; sustainable development goals; university; teaching

1. Introduction

To deal with the different environmental issues, we must raise people's awareness to take action and help improve the environment and its situation. Environmental education is a fundamental tool for teaching and training people to have environmental responsibility and a sustainable vision. There should be a strategy to implement environmental contents and studies in the curricula of educational institutions [1].

In this regard, universities hold a privileged position within society. They represent a leading role in knowledge creation and spreading [2]. At the same time, they are promoters of global, national and local innovation, economic development, as well as social welfare. That is why universities have the leadership in student education and a social commitment through education. The institutions must never forget their educational and formative objective for look for the all-round development of the individual. In this context, it is necessary to consider the way of being and the way of interacting with the environment (fields where there are attitude processes) to achieve changes in the students and the society in which they live. Attitudes predispose and lead us with respect to the facts of reality; they represent a personal synthesis that filters our perceptions and guides our thinking, facilitating

the adaptation of the individual to the context; hence, the importance of the link between the process, the attitudes and environmental education [3].

Universities also lead the way in achieving the Sustainable Development Goals (from now on, SDGs) according to their capacity to create and spread knowledge [4]. These goals were set by the United Nations in 2015 and they are also known as the 2030 Agenda [5]. They must be achieved through education and research [6].

The 2030 Agenda considers education a key strategy to accomplish these horizons. Environmental education must answer the environmental issues defining not only new relevant objectives and contents, but specific teaching programs to empower people and students. From this point of view, the university has to establish new educational projects to create an essential context to incorporate the SDGs in its governance [7]. These ideas encouraged us to begin research to know and assess the students' connection between knowledge and behavior towards the environment, bearing in mind their attitude and involvement with the improvement of the environment. The research provided us with information about the main features and characteristics of the students who have a positive attitude towards environmental issues, the future consequences we have to avoid to teach and keep a pro-environmental attitude, and the commitments they are willing to make to solve problems. At the same time, there is a new methodological strategy to study and assess attitudes towards the environment, making it an imperative element in the planning of projects focused on the promotion of pro-environmental behaviors, and following the new strategic scene established by the Sustainable Development Goals approved by the UN in the 2030 Agenda.

The university, as an institution devoted to knowledge creation and spreading through research and teaching, has an undeniable prominence in the spreading and application of possible solutions and alternatives to socio-environmental issues that current society is facing [8,9]. The experiences and learning of the university community are vital to reach a change towards sustainability culture. So, the integration of a sustainable development education within higher education contributes to developing competences in sustainability among university graduates, such as critical and creative thinking, problem-solving strategies, capacity to act, collaboration and systemic thinking. These graduates will be potential change actors with the ability to shape a more sustainable society [10].

2. The 2030 Agenda and Sustainable Development Goals before Global Challenges

Human activity has led us to one of the main challenges we have to face: The socio-environmental impacts produced by global socio-economical structures and policies, as well as an unequal market model based on labor and nature exploitation. This situation has contaminated our cultural and life models, colonizing individual and collective identities. Sometimes, we have faced this situation assuming an irresponsible behavior, copying or transferring the outlines that brought us to the environmental collapse [11,12].

A series of environmental complications have arisen: Global warming, marine pollution, deforestation or climate change, among others. The worsening of these problems evidences we are not only facing an environmental deterioration, it is far beyond that. There has been a wide general change because of human action, which has a direct and exponential effect on the planet [13,14].

This is why people have begun to take part and declare a change of attitude towards the environment and sustainable development. These attitudes have an impact on behaviors, although we are aware there is not a direct connection, it is subject to the diversity of situational and personality factors. Then, the attitude will be a previously preparatory disposition to the responses before social stimuli. These are not innate attitudes, they are learned through a series of experiences which reinforce, or not, specific behaviors [12]. So, the subject's behavior towards the environment depends more on the subject's education, because their behavior will be more connected to their performance in this educational context. Therefore, when we are beginning to realize the planet's extinction threat, we must not feel we are failing as a species. Instead, we have to think how to change our attitudes and behaviors [15,16].

Furthermore, we want to echo the statement of the United Nations Secretary General:

“We must take the first determined steps toward a sustainable future with dignity for all. Transformation is our aim. We must transform our economies, our environment and our societies. We must change old mindsets, behaviors and destructive patterns. We must embrace the integrated essential elements of dignity, people, prosperity, planet, justice and partnership.” [16–18]

With these words, the United Nations Secretary General presented in 2015 the declaration “Transforming our world: the 2030 Agenda for Sustainable Development”. The Agenda focuses on a set of 17 Sustainable Development Goals (SDGs) to answer urgently the main problems and global challenges that humanity and the planet have to face: No poverty, zero hunger, good health, quality (inclusive and equal) education, gender equality, environmental and resource sustainability, promote economic growth, reduced inequality, climate action, promote peace in the world, etc., for 2030.

The 2030 Agenda combines two United Nations traditions: on one hand, the Millennium Development Goals Declaration of 2000 and, on the other hand, the Environmental and Climate Change Agenda. These declarations and conferences, from the Paris Declaration in 2005 to the International Conference on Financing for Development, finished with the UN Sustainable Development Summit in 2015, when the 2030 Agenda for Sustainable Development was adopted.

2.1. SDGs’ Features

In the preamble of the United Nations resolution “Transforming our world: the 2030 Agenda for Sustainable Development” (A/RES/70/1), the Agenda is defined as “a plan of action for people, planet and prosperity [19]. According to the resolution, the SDGs and their objectives are “integrated and indivisible, accepted by all countries and is applicable to all, taking into account different national realities, capacities and levels of development and respecting national policies and priorities” [20]. In addition to these principles, there are other fundamental features, such as a cross-cutting approach, shared responsibility, subsidiarity, localizing, appropriation and accountability [21,22].

Based on the principles of integration, indivisibility and universality, the SDGs are interconnected and must be considered in their entirety. There are different types of relations between the objectives. However, progress in one of them automatically generates progress in the others.

Besides, in this interconnection of the SDGs, we have to bear in mind the necessary integration of geography and participants. This means that many SDGs require a parallel implementation at local, national and international levels through multiple participants [23]. The universality principle aims to ensure that no one is left behind. All participants in the implementation of the Agenda must consider that humanity is facing problems that require an urgent global response. As we have pointed out previously, the Agenda has the power to unite the SDGs with other international instruments like the Universal Declaration of Human Rights and the conventions on education, health, security, etc. [24]. Moreover, the Agenda asks for a hierarchy of priorities, where the most vulnerable people can enjoy the benefits of sustainable development “without distinction of any kind as to race, color, sex, language, religion, political or other opinion, national or social origin, property, birth, disability or other status” [20,25].

In the assessment of the SDGs’ importance, their pedagogical and promotional values stand out. The SDGs are sometimes presented as the five Ps: People (SDG 1–5), Prosperity (SDG 6–12), Planet (SDG 13–15), Peace (16) and Partnership (SDG 17) [21,26]. The SDGs’ formulation reflects the interconnection between regions and stakeholders. Objectives and goals bring information about the direct effects and consequences of our actions: What we do here (in terms of air pollution, water contamination, deforestation or local work conditions) has an impact there [21,22].

2.2. States and Institutions before the SDGs

Many of the United Nations Member States and other (public or private) institutions have developed plans of action to extrapolate the SDGs to their governments' policies or institutional strategies. Spain has been one of the most advanced countries in creating a plan to fulfill the commitments acquired with the Agenda's ratification. In June 2018, the Spanish cabinet passed the plan of action for the implementation of the 2030 Agenda [27], along with its first national voluntary exam [28]. With this plan of action, Spain hopes to "boost immediately new policies, measures, governance and work methods to achieve the adoption of a 2020–2030 sustainable development strategy". The Spanish plan of action is divided into two parts. The first part is based on a national and regional diagnosis counting the different actions carried out. The second part is devoted to the Strategy 2020–2030 for Sustainable Development, although it has not been published yet. According to the plan of action, this strategy has to be the road map that leads us to the real achievement of the objectives and goals of the 2030 Agenda [27,28].

3. University and the SDGs

In May 2018, the Conference of Rectors of Spanish Universities (CRUE) declared its support of the 2030 Agenda and helped in the Spanish plan of action to implement the Agenda and the SDGs. According to the declaration of the rectors, "the university is a key participant in the promotion of sustainable human development". Its responsibility in education is unquestionable, because it creates critical awareness and incorporates the ideas and values of equal and inclusive sustainable development [29]. The rectors were committed to creating and spreading knowledge according to the objectives of the 2030 Agenda for sustainable development and incorporating the objectives and values of sustainable development in every competence and activity with a cross-sectional approach. In March 2019, the CRUE Commission for 2030 Agenda was created to coordinate all joint actions for the achievement of the objectives, and to raise environmental awareness among the university community. The essential objectives are the promotion of the 2030 Agenda for Sustainable Development implementation process, and the international commitment to reaching a sustainable development where the universities have a key role [30,31]. Its identity is defined by the fields of action in the universities:

Teaching: Considering the nature of the universities and their function in the core of society, they represent a key role in the formation of responsible citizens able to commit before the challenges of a global world. This concept will contribute to the creation of new methodologies, learning contexts and competence acquisition processes for global citizens who understand the SDGs.

According to this, goal 4 is a cornerstone of the SDGs: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. Universities share a key role in the implementation of the SDGs through their wide variety of educational and learning activities (graduate and postgraduate studies, professional training, older adults teaching, company teaching, distance learning) [3].

Research: Creating and spreading knowledge through research and innovation must provide solutions for the challenges and problems of the present world, helping the SDGs and the environment. To do so, cross-sectional contexts and networks are necessary, both in universities and other higher education institutions, research centers or other society organizations (national and international).

Research investigation is fundamental to find and understand the challenges, identify and evaluate the options and develop solutions. This is a great contribution to the operative implementation of the SDGs [3,22].

Knowledge transference to society: The connection between society and university is unquestionable. The progress and welfare of society depends on this link. That is the reason why dialogue and cooperation (with all the social, public and private organizations, national or international bodies) are so important to reach a solution for the most urgent problems of humanity. The university as an institution has a responsibility and an essential mission: To give knowledge, innovation and the results

of its research back to society; as well as training people with critical awareness and commitment to the principles and values of sustainable development.

Institutional governance: The government and management teams of universities must commit to tackling the SDGs: Starting and facilitating cross-sectional dialogue, participating with national bodies to implement SDGs, and helping to design policies based on the SDGs to progress and achieve the 2030 Agenda in universities [3,22,31].

In this regard, universities are able to organize and coordinate internal governmental structures and operative policies related to the SDGs. The areas specifically connected with the sustainable development goals (except for the ones linked with training and research) are: SDG 1: End of poverty; SDG 5: Gender equality; SDG 6: Clean water and sanitation; SDG 8: Decent work and economic growth; SDG 10: Reduced inequalities; SDG 11: Sustainable cities and communities; SDG 13: Climate action; SDG 15: Life on terrestrial ecosystems; and finally, SDG 16: Peace, justice and strong institutions.

In this research, we focused on the first field. Universities educate future citizens through the acquisition of knowledge, skills and attitudes to be committed to the environment. We believe this function is carried out by education for sustainable development, and more specifically, environmental education.

4. Environmental Education and the SDGs

The implementation of Education for Sustainable Development requires the implication of the universities due to the relevance of learning processes in the training of individuals and professionals who are able to transform the contexts in accordance with the principles and values of the SDGs. This is highlighted in the document of the United Nations “Getting Started with the SDGs in Universities.” A guide for universities explains the guidelines for higher education centers and the academic sector to “provide students with skills to think through complexity, to learn through dialog and communication, to participate in a deep reflection”, to create Values, and to evaluate which actions help or hamper the achievement of the SDGs. This will contribute to a more effective implementation of SDG 4, boosting the rest of the SDGs [32,33].

According to the 2017 SDSN General Assembly document “The role of Higher Education to foster sustainable development: Practices, tools and solutions,” the educational objectives are the following:

1. To provide the students with knowledge, skills and motivation to understand and address the SDGs.
2. To empower and mobilize young people.
3. To provide academic or vocational education to implement SDGs’ solutions.
4. To generate more opportunities for training students and professionals in developing countries to tackle the challenges connected with the SDGs.

According to these objectives, we think that if we want to consider the SDGs as an object of study in universities, we must believe education is the only instrument available to incorporate them. Such an education is referred to by some authors as “education for sustainable development”, and by others as “environmental education”. Many authors agree that the objectives and principles of education for sustainable development are the same in environmental education [34–40]. Other authors include environmental education in education for sustainable development, which means that they consider education for sustainable development as the evolution of environmental education [7,13,17]. In this research, we believe that education for sustainable development is not taking the place of environmental education, it derives from it. Education for sustainable development introduces more sectors not only in the educational field, but also in the scientific community and citizens’ movement. This fact is a first step towards working with the concept of environmental education, because we are dealing with a formal education completed within the academic field [41].

It is crystal clear that environmental education (EE) (like education for sustainable development (ESD) pursues or aims to train people and society to direct the progress towards the ecological

foundations of cultural diversity, equity and social engagement. Therefore, it is vital to bear in mind the knowledge, attitudes, behaviors and values connected with the environment. In the same way, environmental education has to provide tools for boosting a greater involvement in environmental management, as well as in the definition of life quality and its conditions [16,42].

However, we believe educational contexts still need an education which does not renounce its identity and environmental entity because it boosts the development of everyone, with and for the entire humankind. This type of education is one that reconciles us with life and all its diversity, a space-time of intense pedagogical and social interaction, intellectual debate and teaching practices to turn education into a powerful cultural tool for designing the future and face the challenges of a present time full of uncertainty [43].

In this regard, environmental education assumes that theories and practices must be at the service of the environment to change perceptions, attitudes and values towards the environment. The final purpose is the acquisition of knowledge, the raising of critical awareness that helps socio-environmental processes and their consequences for the future of the planet, creating coherent attitudes and behaviors. All of it this is part of the search for sustainable development from the perspective of environmental education [44].

This is where environmental education coincides with education for sustainable development: its interest in nature. This approach tries to gather the tradition of environmental education, and, nowadays it is endorsed and promoted by the highest international organizations [4,9]. Environmental education searches for an educational answer to the crisis caused by the mismatch between the conduct of social and human groups and nature [45–47].

We think that an education which meets these criteria must make students commit to a full transformation of society. The educational system must understand that any aggression towards the environment is always a social aggression addressed to the planet itself, but it has an even worse impact on the poorest people, for example [24,48,49].

Environmental education should not oppose the goals of a sustainable development (as long as this development clarifies all its practical consequences in words and facts) because it is a pedagogical practice based on critical thinking and freedom (as every education must be). It should take on responsibilities in the fight against poverty and inequalities (the main motivation of the SDGs), involving people in its initiatives.

Finally, this leads us to consider the required complicity and reciprocal support of environmental education and education for sustainable development from the human rights approach [50]. In our opinion, this is one of the greatest challenges facing the university education system. The university holds the responsibility to assure the creation of knowledge, skills, attitudes and values in the students to achieve an effective solution for environmental issues [51,52]. Therefore, the university is also an educational center where the experiences of the members of the university community (students, professors, administrative and service staff) in their day-to-day have a great importance in developing and building their scale of values and environmental behavior. [53].

Eventually, we think environmental education must make students know the reality and its connection with nature, but they cannot forget the problems attached to this connection. This idea is perfectly adapted to every SDG because they exist to solve the problems that have arisen from our connections and the way we use the planet. This is a capital fact in the structure of this article, because we are proposing a light contribution to the topic in order to make our future a bit more sustainable.

Some SDGs are closer to environmental education, for example, clean water and sanitation (SDG 6), ensuring sustainable consumption and production patterns (SDG 12), and conserving life below water (SDG 14), among others. However, the set of all these objectives brings us the opportunity to tackle from a wider perspective the challenges we have to overcome in order to achieve a society in balance with nature and itself.

Besides, the SDGs may be the new base for environmental education, and this educational action could be the best tool that society has for achieving the SDGs. The cross-cutting approach of

environmental education allows to achieve all these challenges from a single place with strategies to make us think and reflect on the inequalities in the world, our responsibility and the measures we have to take for better development together. These are the foundations of environmental education and the SDGs. Everything is connected and if we want a sustainable world (with equality, sustainable development, end of poverty and hunger), we must fight to achieve it in every aspect of our life.

5. Materials and Methods

This research is based on a descriptive, cross-sectional and quantitative methodology [54–56] that lets us gather data from the students about the environment and the environmental education for better sustainable development to achieve the SDGs. The same data have been used for two different objectives proposed in this research. Firstly, to interpret the variations in environmental knowledge and behavior considering the attitude towards involvement in the change of the environment (the variable “I can influence the environmental protection through my actions”). This attitude lets us gather the students, defining a profile that provides information about the features of those whose attitude is positive with regards to their influence on the environment. Secondly, we wanted to study the data in depth to know the underlying conceptual aspects for these students who think they can have an impact on the environment, and the different structures that may arise between men and women [57].

5.1. Participants

The groups were selected from a research population coming from the universities of Seville (both UPO and HISPALENSE), Málaga, Granada, Córdoba and the Faculty of Education in Ceuta from the University of Granada during the academic year 2017–2018. These universities from the region of Andalusia held cross-cutting activities on the occasion of World Environment Day during the mentioned academic year. The activities combined gatherings, concerts, symbolic tree plantings, seminars, round tables, conferences, etc. From 132,076 students in total, the non-probabilistic performing sample was 1471 students ($1-\alpha=0.95$; $e=\pm 2.54\%$ and $p=50$). They all took part in activities connected with World Environment Day, but the selected ones participated in intellectual events (seminars, round tables, conferences, etc.). They were supposedly more interested in environmental topics. The academic degrees they were studying towards were Environmental Sciences, Social Education, Sociology, Sociology and Politic Sciences, Pedagogy, Early Childhood Education and Sports and Physical Education. Table 1 shows the selected sampling by universities. The distribution is explained by the selected students’ situation, used also for the difference between men and women. Of all participants, 22.9% were men and 77.1% are women. The average age was 21.7 years old.

Table 1. University Sample.

Sevilla	Málaga	Córdoba	Granada	Cádiz	Total
894	237	180	61	99	1471

Of all participants, 22.9% are men and 77.1% are women. The average age is 21.7 years.

These faculties held some cross-sectional activities related to the World Environment Day.

5.2. Research Instrument

The instrument was a specific questionnaire made for this research (Appendix A), with 40 questions to answer with a four-point Likert scale (totally disagree, disagree, agree, totally agree) to study the levels of environmental knowledge (8 questions), environmental education information (10 questions) and environmental behavior (22 questions). The reliability of the instrument produced an index of 0.977 in Cronbach’s alpha (considered excellent [58]), whereas in omega, mentioned and recommended by several authors, we obtained the following coefficients: $\omega = 0.98$ of instrument and $\omega = 0.93$; $\omega = 0.77$; and $\omega = 0.85$ of the dimensions (considered good). To validate the content of the study, we used an expert panel: 94% agreed to keep the dimensions and questions of the instruments.

5.3. Procedure

The survey method was the technique used, through the previously described questionnaire. The pollsters were trained to interview the participants. They were asked if they were interested in environmental topics, if they had taken part in any of the events of World Environment Day held at their university, and if so, what kind of activity this was. If they answered affirmatively about the interest in environmental topics, and if any of the events they participated in was a seminar, a conference or a round table (considered intellectual activities), they were invited to complete the questionnaire voluntarily. Following this procedure, we were able to obtain answers from students with previous knowledge about environmental topics, which was our goal. The survey was carried out during the second semester of the 2017–2018 academic year, so the reliability of the information gathered was guaranteed. Afterwards, statistical analysis was carried out using the statistical software SPSS Version 25 [59].

5.4. Data Analysis

The statistical analysis began with descriptive analyses, normality tests for the data (in order to compare the normality hypothesis of the population, which is necessary to have reliable results in the analysis) using the Kolmogorov–Smirnov test ($p < 0.05$), and finally, the inferential analysis using the Mann–Whitney U test ($p < 0.05$) for the variable that collects the positive attitude, “I can influence environmental protection through my actions”. This variable will be useful to establish a profile connected with the students’ features through the different aspects of the questionnaire, a profile of positive attitude towards the environment.

Later, we ran factorial analyses on the selected variables considering the entire sample and the gender casuistry. We checked the sample adequacy with Bartlett’s test of sphericity ($p < 0.05$) and a Varimax orthogonal rotation to identify the structure of the relations between the variables. This contributes to noticing the latent dimensions that will let us understand which concepts are connected with a positive attitude towards environmental protection, and spot predictors to build the training in this area.

6. Results

Once the normality tests of the study were run (Kolmogorov–Smirnov test: $p < 0.05$), the variables were checked with the Mann–Whitney U test ($p < 0.05$) to obtain the significant differences which define the students who have a positive attitude (“I can influence environmental protection through my actions”). They were also used in the factorial analyses. The selected variables in Table 2 show the environmental knowledge dimension.

Table 2. Selected Variables According to the Mann–Whitney U test ($p < 0.05$).

Contrast Variable: Q16 (“I can influence environmental protection through my actions”)	<i>p</i>
ENVIRONMENTAL KNOWLEDGE	
Q1: The environment is the natural environment surrounding us.	0.006
Q2 The environment affects our lifestyle.	0.000
Q3 The environment influences our culture.	0.001
Q18 I completely understand the concept of sustainable development.	0.012
Q19 Environmental protection depends on the implementation of sustainable development.	0.000
Q21 The use of recycled products benefits the economy.	0.002

The second dimension (Table 3) shows the significant variables with $p < 0.05$ values measuring the knowledge of environmental education of students who think they can have an impact with their behavior on environmental protection. These students admit that environmental education helps to understand the environment and our relationship with it, its protection and the achievement of sustainable development. Above all, however, they think it would help to protect natural

resources, and they believe that people with environmental knowledge can provide other people with environmental education.

Table 3. Selected Variables According to Mann–Whitney U test ($p < 0.05$).

Contrast Variable: Q16 (“I can influence environmental protection through my actions”)	<i>p</i>
Environmental Education Knowledge	
Q6 Environmental education helps to understand the connections between people and the environment surrounding them.	0.000
Q11 A person with knowledge about the environment can provide others with environmental education.	0.000
Q20 Environmental education is a tool for raising people’s awareness.	0.000
Q30 Environmental education shows how to take care of natural resources.	0.000
Q31 Environmental education is a way to know the environment.	0.000
Q39 Environmental education is very important to achieve sustainable development.	0.000
Q40 Environmental education shows how to protect the environment.	0.000

The third dimension tackles environmental behavior and presents the selection of variables (Table 4). We can see the students’ tendency to collaborate with environmental protection, because protecting the environment has an impact in the quality of life, and ultimately, the interest in its protection may help to prevent and solve its problems. The students are worried about the environment’s preservation and they participate in activities connected with environmental protection organized in their universities. They also take part in waste recycling in their homes, although they admit it is not very useful if most people do not take part, too. Finally, they feel these habits have an impact on the environment and they are pessimistic about the current economic system, which will use up global resources.

Table 4. Selected Variables According to Mann–Whitney U test ($p < 0.05$).

Contrast Variable: Q16 (“I Can Influence Environmental Protection through My Actions)	<i>p</i>
Environmental Behavior	
Q4 Environmental protection influences the quality of life.	0.003
Q7 The interest in environmental protection may help to solve environmental problems.	0.001
Q8 The interest in environmental protection could prevent the rise of environmental problems.	0.000
Q9 I am worried about environmental protection.	0.003
Q17 I take part in the activities connected with environmental protection organized in my university.	0.000
Q22 The current economic system will use up the resources of the planet.	0.001
Q24 Most people do not recycle correctly.	0.000
Q25 We separate different types of waste at home.	0.006
Q28 It is useless that I recycle if most people refuse to do it.	0.001
Q33 If we all help in environmental protection, there would not be environmental problems.	0.001
Q36 Habits have an influence on the respect for the environment.	0.000

The variables selected by the Mann–Whitney test were submitted to factorial analyses with the same dimensions we studied. We used this procedure to find the underlying concepts which would indicate the direction of the environmental knowledge, the environmental education knowledge and the environmental behaviors. The results come from the group’s point of view, both united and separated by gender, as a whole, and finally from each gender’s point of view. In this case, a factorial analysis was performed to compare the different data models or structures by gender [60–62].

6.1. Conceptual Structure of Environmental Knowledge

The first dimension submitted to the factorial analysis (variables Q1, Q2, Q3, Q18, Q19 and Q21) covers environmental knowledge. The Bartlett’s test (0.000) confirms the analysis is significant. The six variables were submitted to the method of component extraction to build a three-component model (Table 5) that explains 66% of the variance. Then, we used the Varimax rotation with Kaiser

normalization (Table 6). The results show three factors, which are the indicators of the knowledge about the environment.

Table 5. Total Variance Explained. Total Sample.

Components	% of Variance	Cumulative %
1	23.907	23.907
2	22.714	46.621
3	19.386	66.007

Table 6. Knowledge about the environment.

Rotated Component. Matrix. Total Sample.	Components		
	1	2	3
Q3 The environment influences our culture.	0.840	0.099	0.053
Q2 The environment affects our lifestyle.	0.837	0.076	0.080
Q19 Environmental protection depends on the implementation of sustainable development.	0.042	0.817	0.127
Q18 I completely understand the concept of sustainable development.	0.133	0.811	−0.056
Q1 The environment is the natural environment surrounding us.	0.024	−0.068	0.796
Q21 The use of recycled products benefits the economy.	0.096	0.132	0.707

The first factor explains 23.907% of the variance and it is saturated with the variables Q3 (The environment influences our culture) and Q2 (The environment affects our lifestyle), which conceptualize the impact of the environment in our lives. The second factor explains 22.714% of the variance and it is saturated with the variables M19 (Environmental protection depends on the implementation of sustainable development) and M18 (I completely understand the concept of sustainable development), which refer to sustainable development as protection of the environment. The third factor explains 19.386% of the variance and the variables M1 (The environment is the natural environment surrounding us) and M21 (The use of recycled products benefits the economy) identify recycling as a financial gain.

The analysis of the men's sample is carried out with the same variables and it is also a significant analysis (Bartlett's test: 0.000). The component model has three factors that explain 72.422% of the variance. Once we have run the Varimax rotation with Kaiser normalization on the variables (Table 7), we obtain three factors that indicate the dimension of knowledge about the environment. The first factor has 49.455% of the variance and it is saturated with four variables (Table 7): M2 (The environment affects our lifestyle), M3 (The environment influences our culture), M18 (I completely understand the concept of sustainable development) and M19 (Environmental protection depends on the implementation of sustainable development.). They conceptualize the connection between the environment in our life and protecting sustainable development.

Table 7. Knowledge about the Environment.

Rotated Component. Matrix Men.	Components		
	1	2	3
Q2 The environment affects our lifestyle.	0.761	−0.018	−0.404
Q3 The environment influences our culture.	0.715	−0.123	−0.495
Q18 I completely understand the concept of sustainable development.	0.611	−0.378	0.347
Q19 Environmental protection depends on the implementation of sustainable development.	0.597	−0.189	0.547
Q1 The environment is the natural environment surrounding us.	0.280	0.756	−0.088
Q21 The use of recycled products benefits the economy.	0.384	0.609	0.383

The second factor explains 12.126% of the variance and has two saturated variables (Table 7): M1 (The environment is the natural environment surrounding us) and M21 (The use of recycled products

benefits the economy), which underlie the concept of natural environment and economic growth that comes with recycling.

The third factor is not relevant for men, as we can see in Table 7. The saturation values of the variables are similar to these two factors previously analyzed.

However, the analysis of the women's sample has the same variables and the required level of significance established with Bartlett's test (0.000). The resulting component model has three factors that explain 66.357% of the variance. Once we have run the Varimax rotation with Kaiser normalization on the variables (Table 8), we obtain three factors that indicate the dimension of knowledge about the environment. The first factor explains 41.690% of the variance and it is saturated (Table 8) with the variables M3 (The environment influences our culture) and M2 (The environment affects our lifestyle), which structure the concept of the environment in our lives.

The second factor (12.834% of the variance) is saturated (Table 8) with the variables M18 (I completely understand the concept of sustainable development) and M19 (Environmental protection depends on the implementation of sustainable development.)

The third factor (11.833% of the variance) structures the concept of economic growth with recycling through the variables (Table 8) M1 (The environment is the natural environment surrounding us) and M21 (The use of recycled products benefits the economy).

Table 8. Knowledge about the environment.

Rotated. Matrix Women.	Component		
	1	2	3
Q3 The environment influences our culture.	0.839	0.104	0.064
Q2 The environment affects our lifestyle.	0.835	0.058	0.108
Q18 I completely understand the concept of sustainable development.	0.087	0.833	0.063
Q19 Environmental protection depends on the implementation of sustainable development.	0.072	0.802	0.156
Q1 The environment is the natural environment surrounding us.	0.047	0.048	0.804
Q21 The use of recycled products benefits the economy.	0.109	0.126	0.692

In Figure 1, we can see the variables' weight of saturation in each factor, in the three sample cases. From the students' perspective, we generally obtain three concepts in knowledge of the environment: the first is the concept of the environment's influence on our life. This is a shared concept with the women's sample. However, in the case of men it has a greater dimension because it is also connected with sustainable development. The second concept covers the durability of the environment with sustainable development and it is verified in the students' group and the women's sample. For men, this concept is faded within the first factor about the environment's influence on our life. The third concept is shared in the three variants of the sample: the economic benefits of recycling and, obviously, its impact on environmental protection.

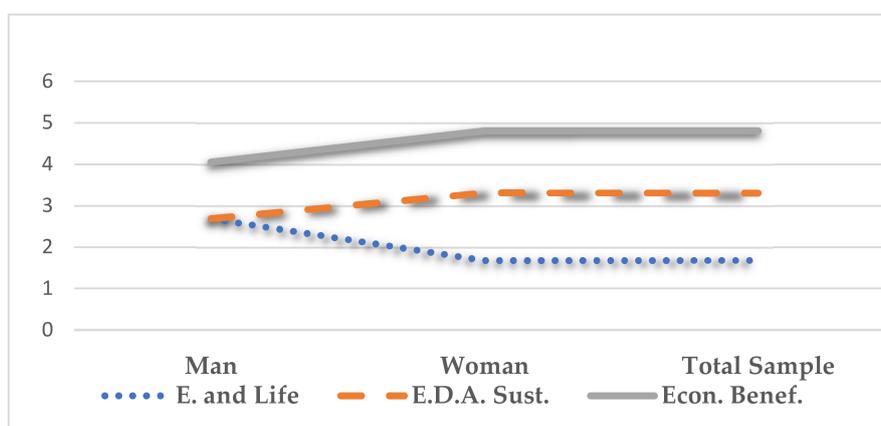


Figure 1. Conceptual structure of environmental knowledge.

6.2. Conceptual Structure of Environmental Education

In the second dimension about environmental education knowledge, the variables we must highlight are Q6, Q11, Q20, Q30, Q31, Q39 and Q40. The Bartlett's test (0.000) confirms the analysis is significant. The variables were submitted to the method of component extraction to build a three-factor model (Table 9) that explains 66.760% of the variance. Once we have run the Varimax rotation with Kaiser normalization on the variables (Table 10), we obtain three factors that indicate the dimension of knowledge about environmental education.

Table 9. Total Variance Explained Rotation Sums of Squared Loadings.

Components	% of Variance	Cumulative %
1	27.031	27.031
2	25.371	52.403
3	14.357	66.760

The first factor explains 27.031% of the variance and it is saturated with the variables Q31 (Environmental education is a way to know the environment) and Q30 (Environmental education shows how to take care of natural resources), which guide the teaching to care about natural resources. The second factor explains 25.371% of the variance and it is saturated with the variables M6 (Environmental education helps to understand the connections between people and the environment surrounding them) and M39 (Environmental education is very important to achieve sustainable development), which indicate that it is necessary to know the connections between people and the environment, and to put sustainable development in practice.

The third factor has 14.357% of the variance and the variable M11 (A person with knowledge about the environment can provide others with environmental education) gives guidance about the teaching abilities of people with knowledge about the environment (Table 10).

Table 10. Environmental Education Knowledge.

Rotated Component Matrix. Total Sample.	Components		
	1	2	3
Q31 Environmental education is a way to know the environment.	0.850	0.202	0.075
Q30 Environmental education shows how to take care of natural resources.	0.841	0.174	0.139
Q40 Environmental education shows how to protect the environment.	0.542	0.535	0.077
Q6 Environmental education helps to understand the connections between people and the environment surrounding them.	0.025	0.744	0.120
Q39 Environmental education is very important to achieve sustainable development.	0.247	0.733	0.012
Q20 Environmental education is a tool for raising people's awareness.	0.291	0.563	0.048
Q11 A person with knowledge about the environment can provide others with environmental education.	0.151	0.108	0.978

We carried out the same analysis with the men's sample, using the same variables. The result of the analysis is significant (Bartlett's test: 0.000). Using the same component model, we obtain three factors that explain 72.422% of the variance. Once we have submitted the variables to the Varimax rotation with Kaiser normalization (Table 11), we get three factors that indicate the dimension of environmental education. The first factor has 49.455% of the variance and it is saturated with four variables (Table 11): M30 (Environmental education shows how to take care of natural resources), M31 (Environmental education is a way to know the environment), M40 (Environmental education shows how to protect the environment) and M39 (Environmental education is very important to achieve sustainable development). These results conceptualize how environmental education trains people to know and protect the environment, taking care of natural resources through sustainable development.

The second factor explains 12.126% of the variance and uses the variables (Table 11) M20 (Environmental education is a tool for raising people’s awareness) and M6 (Environmental education helps to understand the connections between people and the environment surrounding them) to structure the concept of environmental education as a tool for raising people’s awareness if we understand the connections between people and the environment.

Table 11. Environmental Education Knowledge.

Rotated Component Matrix Men.	Components		
	1	2	3
Q30 Environmental education shows how to take care of natural resources.	0.820	0.093	0.246
Q31 Environmental education is a way to know the environment.	0.811	0.176	0.176
Q40 Environmental education shows how to protect the environment.	0.727	0.403	0.172
Q39 Environmental education is very important to achieve sustainable development.	0.590	0.510	−0.031
Q20 Environmental education is a tool for raising people’s awareness.	0.060	0.803	0.376
Q6 Environmental education helps to understand the connections between people and the environment surrounding them.	0.365	0.683	−0.114
Q11 A person with knowledge about the environment can provide others with environmental education.	0.263	0.090	0.894

The third factor has 10.841% of the variance and is supported with the variable M11(A person with knowledge about the environment can provide others with environmental education), as we can see in Table 11. This represents the concept that we are able to teach others about environmental education just to have knowledge about the environment.

To reach these conceptual structures in the women’s sample, we analyzed the same variables used in the two previous samples. The result of the analysis is significant (Bartlett’s test: 0.000). The component model draws three factors that explain 66.357% of the variance. Once we have run the Varimax rotation with Kaiser normalization on the variables (Table 12), we obtain three factors that indicate the dimension of knowledge about environmental education.

The first factor explains 49.455% of the variance and it is structured with the variables (Table 12) M39 (Environmental education is very important to achieve a sustainable development), M40 (Environmental education shows how to protect the environment), M6 (Environmental education helps to understand the connections between people and the environment surrounding them) and M20 (Environmental education is a tool for raising people’s awareness).

The concept of environmental education represents a way of raising people awareness and understanding our relationships with the environment, its protection, and the achievement of a sustainable development.

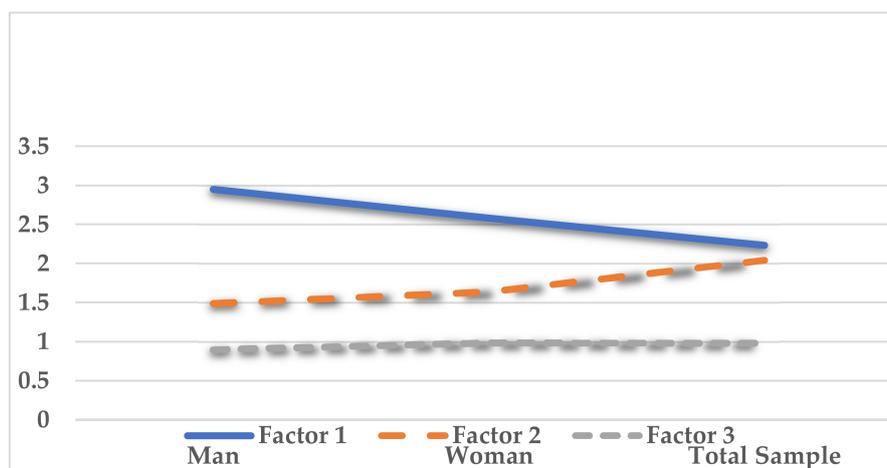
The second factor has 12.834% of the variance and its conceptual structure is held by the variables (Table 12) M31 (Environmental education is a way to know the environment) and M30 (Environmental education shows how to take care of natural resources). They conceptualize environmental education as a way of protecting natural resources.

The third factor (see Table 12) presents only one variable that defines the ability to teach of individuals who know the environment.

Table 12. Environmental Education Knowledge Rotated Component Matrix Women.

Rotated Component Matrix Women.	Components		
	1	2	3
Q39 Environmental education is very important to achieve a sustainable development.	0.849	0.076	0.056
Q40 Environmental education shows how to protect the environment.	0.660	0.370	0.093
Q6 Environmental education helps to understand the connections between people and the environment surrounding them.	0.592	0.166	0.087
Q20 Environmental education is a tool for raising people's awareness.	0.478	0.432	0.015
Q31 Environmental education is a way to know the environment	0.213	0.851	0.071
Q30 Environmental education shows how to take care of natural resources.	0.200	0.840	0.135
Q11 A person with knowledge about the environment can teach others environmental education.	0.118	0.128	0.982

In Figure 2, we compare the concepts about environmental education with the variants of the sample. We can see that the first factor has a greater presence, structuring the concept of environmental education as the knowledge and care of the natural environment and its protection. This conceptual organization represents the students' sample, but it has variants. In the case of men, it shares the knowledge, the care and the protection of the environment, but they add the achievement of a sustainable development as an important fact. In the case of women, sustainable development becomes more relevant with environment protection. They also attach great importance to raising people's awareness.

**Figure 2.** Conceptual structure of environmental education.

In the second factor, the students in general connect environmental education with sustainable development. Men think that understanding the environment seeks to raise people's awareness, and women believe that the knowledge of the environment encourages people to take care of natural resources.

The third factor is unanimous in all the sample cases: they all support the teaching abilities of those who have knowledge about the environment.

6.3. Conceptual Structure of Environmental Behavior

Finally, the study of the third dimension about environmental education highlighted the variables Q4, Q7, Q8, Q9, Q17, Q22, Q24, Q25, Q28, Q33 and Q36. Once the variables have been submitted to the method of component extraction, the result is a three-component model (Table 13) that which explains 44.094% of the variance. Compared with other analyses, the variance is low. Bartlett's test indicates the obtained data matrix is relevant to perform the factorial analysis [63], and the analysis is correct if

it observes the principle of parsimony, that is, to explain the research with fewer elements; and the principle of interpretability, which means that the analysis can be interpreted [64]. According to the results obtained, both principles have been observed.

Table 13. Total Variance Explained Rotation Sums of Squared Loadings.

Components	% of Variance	Cumulative %
1	23.195	23.195
2	11.221	34.416
3	9.678	44.094

We applied the Varimax rotation with Kaiser normalization on the variables (Table 14), and we obtained three factors with the indicators of environmental behavior.

Table 14. Environmental Behavior.

Rotated Component Matrix Total Sample.	Components		
	1	2	3
Q7 The interest in environmental protection may help to solve environmental problems.	0.688	0.044	−0.034
Q8 The interest in environmental protection could prevent the rise of environmental problems.	0.681	0.046	−0.103
Q4 Environmental protection influences the quality of life.	0.585	0.101	−0.133
Q16 I may have an influence on the environment through my actions.	0.485	0.261	0.154
Q33 If we all help in environmental protection, there would not be environmental problems.	0.496	0.024	0.310
Q9 I am worried about environmental protection.	0.489	0.366	−0.289
Q24 Most people do not recycle correctly.	0.485	−0.129	0.228
Q22 The current economic system will use up the resources of the planet.	0.455	0.022	−0.314
Q36 Habits have an influence on the respect for the environment.	0.451	0.026	−0.038
Q17 I take part in the activities about environmental protection organized in my university.	0.032	0.766	0.247
Q25 We separate different types of waste at home.	0.017	0.747	−0.183
Q28 It is useless that I recycle if most people refuse to do it.	−0.076	0.019	0.814

The first factor explains 23.195% of the variance (see Table 14). It is saturated with the variables Q7 (The interest in environmental protection may help to solve environmental problems), Q8 (The interest in environmental protection could prevent the rise of environmental problems) and Q4 (Environmental protection influences the quality of life). These variables highlight the interest in solving environmental issues.

The second factor shows 11.221% of the variance with the variables (see Table 14) Q17 (I take part in the activities about environmental protection organized in my university) and Q25 (We separate different types of waste at home). They structure the active and participative components of environmental behavior.

The third factor explains 9.678% of the variance and it is saturated (Table 14) with the variable M28 (It is useless that I recycle if most people refuse to do it). This represents the request for collaborative and collective action.

As we have done in the whole study, we analyzed the men's sample with the same variables. The Bartlett's test (0.000) confirms the analysis is significant. Once the variables have been submitted to the method of component extraction, the result is a three-component model that explains 47.581% of the variance. We applied the Varimax rotation with Kaiser normalization on the variables (Table 15), and we obtained three factors to structure the environmental behavior.

Table 15. Environmental Behavior.

Rotated Component Matrix Men.	Components		
	1	2	3
Q4 Environmental protection influences the quality of life.	0.705	0.165	0.037
Q9 I am worried about environmental protection.	0.686	−0.050	0.438
Q22 The current economic system will use up the resources of the planet.	0.637	0.078	−0.042
Q36 Habits have an influence on the respect for the environment.	0.529	0.295	−0.037
Q24 Most people do not recycle correctly.	0.432	0.222	−0.108
Q7 The interest in environmental protection may help to solve environmental problems.	0.252	0.780	0.060
Q33 If we all help in environmental protection, there would not be environmental problems.	−0.032	0.766	0.000
Q8 The interest in environmental protection could prevent the rise of new environmental problems.	0.306	0.628	0.122
Q28 It is useless that I recycle if most people refuse to do it.	−0.147	−0.203	−0.112
Q25 We separate different types of waste at home.	0.056	0.075	0.784
Q17 I take part in the activities about environmental protection organized in my university.	−0.095	0.090	0.719

The first factor represents 25.585% of the variance and it is saturated (Table 15) by the variables Q4 (Environmental protection influences the quality of life), Q9 (I am worried about environmental protection), Q22 (The current economic system will use up the resources of the planet) and Q36 (Habits have an influence in the respect for environment). These variables coordinate the concern about the environment's destruction, the connection with the quality of life and habits, and the certainty that the economy will end up destroying it.

The second factor has 11.695% of the variance and the structure (Table 15) is based on three variables: Q7 (The interest in environmental protection may help to solve environmental problems), Q33 (If we all help in environmental protection, there would not be environmental problems) and Q8 (The interest in environmental protection could prevent the rise of environmental problems). They are focused on an interest attitude as a way to save the environment.

The third factor explains 10.305% of the variance and presents the most dynamic aspect of environmental behavior. The variables Q25 (We separate different types of waste at home) and Q17 (I take part in the activities about environmental protection organized in my university) define the level of participation in the activities to protect the environment.

To study the environmental behavior of the women's sample, we analyzed the same variables of the previous samples. The Bartlett's test (0.000) confirms the analysis is significant. Once the variables have been submitted to the method of component extraction, the result is a three-component model that explains 43.447% of the variance. We applied the Varimax rotation with Kaiser normalization on the variables (Table 16), and we obtained three factors with the indicators of the environmental behavior.

The first factor explains 22.307% of the variance. As we can see in Table 16, it is saturated with three variables: Q8 (The interest in environmental protection could prevent the rise of new environmental problems), Q7 (The interest in environmental protection may help to solve environmental problems) and Q9 (I am worried about environmental protection). They conceptualize an attitude of worry about the issues in environmental protection.

The second factor shows 11.125% of the variance, bringing together two variables (Table 16): Q17 (I take part in the activities about environmental protection organized in my university) and Q25 (We separate different types of waste at home). They represent clearly a model of active attitude towards the environmental protection.

Finally, the third factor has 10.015% of the variance (Table 16), and it is structured with the variable Q28 (It is useless that I recycle if most people refuse to do it), which gives importance to everyone's collaboration in environmental protection.

Table 16. Environmental Behavior.

Rotated Component Matrix Women.	Components		
	1	2	3
Q8 The interest in environmental protection could prevent the rise of new environmental problems.	0.694	−0.036	0.069
Q7 The interest in environmental protection may help to solve environmental issues.	0.669	−0.023	0.096
Q9 I am worried about environmental protection.	0.605	0.276	−0.095
Q4 Environmental protection influences the quality of life.	0.529	0.064	0.049
Q22 The current economic system will use up the resources of the planet.	0.510	0.031	−0.013
Q36 Habits have an influence on the respect for environment.	0.363	0.046	0.216
Q17 I take part in the activities about environmental protection organized in my university.	0.006	0.783	0.229
Q25 We separate different types of waste at home.	0.123	0.727	−0.212
Q28 It is useless that I recycle if most people refuse to do it.	−0.330	0.081	0.752
Q24 Most people do not recycle correctly.	0.335	−0.159	0.456
Q33 If we all help in environmental protection, there would not be environmental problems.	0.335	0.027	0.435

In Figure 3, we compare the concepts about environmental behavior with the three variants of the sample. We see that the first factor has a greater presence, structuring the aspects that explain the attitude towards the environment. The students' sample has a great interest in environmental protection as a way to prevent future issues. This attitude is shared by the women's sample. However, men stress their interest in preservation because it affects the quality of life, and they are concerned about the negative impact of the economy on the protection of the natural environment.

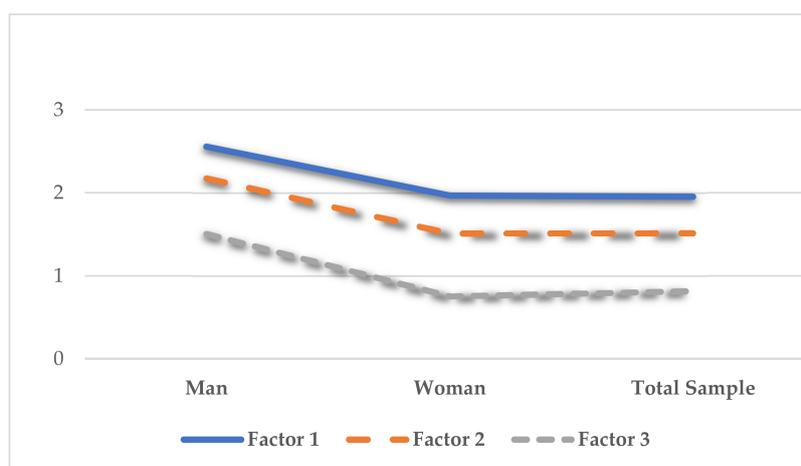


Figure 3. Conceptual structure of environment behavior.

7. Discussion and Conclusions

According to the research, we can state that most of the universities in this study are developing actions on environmental education. Among them, the highlight is on the activities focused on research, teaching, sensitization, knowledge spreading; as well as programs and projects based on environmental and/or educational topics. Therefore, we tried to bloom new empirical and theoretical facts in the field of environmental research, linked with nature in the context of the 2030 Agenda and the SDGs.

If we focus on the conceptual aspect of the knowledge about the environment, the students identify the environment as the natural environment affecting our way of life and influencing our culture. They think sustainable development is part of the environmental protection process, and they also give importance to recycling in order to achieve environmental protection.

The students feel environmental education is a topic that helps them to understand the environment and our connection with it, accepting it as a resource to achieve sustainable development. However, above all, they believe that environmental education will help them in the protection of natural resources and the search of a better quality of life. They think that people with environmental knowledge can teach other people environmental education. In the same way we have presented it in the research, we defend the evolution of environmental education, looking for the link between human beings, nature and society from the view of sustainable development [24,42,65]. A type of environmental education which is indispensable to achieve the SDGs and leads us to think the students have positive attitudes towards the achievement of SDG 6, SDG 11 and SDG 15, evolving and changing towards an education for sustainable development.

Along the same lines, the research tries to highlight the need to understand the socio-environmental issues and their dimensions, considering the environment as the group of interrelations between the natural world and the social world [66,67]. In the end, we see how teaching and training have a special value in a global world where the values of solidarity and environmental education are key to achieve the SDGs [68], specially SDG 1, SDG 10, and SDG 16, according to our work.

With regard to the students' opinion about their environmental behavior, we could affirm that students are worried about environmental protection, and they participate in the activities about environmental protection organized in their universities. They think habits have an impact on the environment and they are pessimistic about the current economic system which will use up global resources. This concept makes us consider that the universities which took part in this study must continue working on the development of behaviors linked to SDG 1, SDG 10, SDG 11, and SDG 16.

As far as environmental education and sustainable development are concerned, the students think it is necessary to raise people's awareness and sensitize society in a general way. An idea connected with the 2030 Agenda's principle of universality: No one left behind. A concept that remarks that we have to take everyone into account. This means, as we previously explained, that many SDGs will require a parallel implementation in at local, national and international levels through multiple participants [23], and the university is one of them. Thus, this research glimpses a sensitization that must lead to a change in our way of life, because students feel our actions influence our environment. The time to give environmental education importance is now. An education with an adequate planning and the social purpose of finding a better connection with nature and the rest of human beings [69]. Therefore, we believe environmental education will be the instrument of change for environmental issues, raising people's awareness and providing training to people to fight for the world surrounding us [70]. We want to highlight that all the students who completed the questionnaire support the teaching abilities of those who have knowledge about the environment. Thus, it seems that they value very favorably a quality teaching that helps to face environmental processes.

The results show that students do not believe that their academic education had contents about environmental topics, or guidelines to use and assess them in order to implement the SDGs. However, university students are aware of the importance of the education for sustainable development in their professional future. This is why the university has to accept and take the required responsibility: Environmental education should be incorporated in the study plans, answering the urgent situation of environmental issues; and the students' empowerment has to improve.

We propose the SDGs' implementation through environmental education, bearing in mind all the available media to spread the existing knowledge in the plans, programs, etc. Moreover, there should be an attempt to adapt and reform the abilities, values, attitudes, and competences to act responsibly with nature, which is a sign of sustainability, change, and the new paradigm of education [71]. An environmental education that puts forward the constant work, in a daily and collective way, to approach balance in the relationship between human beings and nature.

As a result of our work, we believe more environmental education programs should be planned, developed and assessed in the university context. In the students' opinion, these programs should stress environmental knowledge and protection, because they think these concepts help to achieve

sustainable development. This will be accomplished with an adequate training of all the agents working in universities in order to raise awareness. Universities must also count in other institutions with knowledge about the environment, which would help in the spreading of knowledge, and ultimately, in the promotion of environmental protection to avoid future problems. Therefore, according to the responsibility and commitment requested from the university in the incorporation of the SDGs inside its management, we must bear in mind the aspects highlighted by the students. These aspects should include actions about the protection of the natural environment, the promotion of life quality and everything involved in their corporative responsibility [72].

In the end, students demand an education that ensures sustainability to for present and future generations without losing its identity, keeping the same uses, customs and traditions. An education focused on the environment to encourage responsibility among its members, in a context where social relations and solidarity among human beings prevail [73]. Overall, an education that must guarantee the incorporation of basic contents about sustainability in all studies, and allows the acquisition of professional, academic and disciplinary competences [47,74].

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Appendix A

Table A1. Questionnaire used for the research.

1. Total Disagreement; 2. Disagreement; 3. Agree; 4. Totally Agree		1	2	3	4
1	The environment is the natural environment around us.				
2	The environment affects our way of life.				
3	The environment influences our culture.				
4	Environmental care influences quality of life				
5	All man's actions are harmful to the planet.				
6	Through environmental education we can understand the relationships between people and the environment around them.				
7	Interest in environmental conservation could help solve most environmental problems.				
8	Interest in environmental conservation could prevent the emergence of new environmental problems.				
9	I am concerned about environmental conservation.				
10	We all have a good environmental education.				
11	A person with knowledge about the environment can train others environmental education.				
12	The environmental education I received at the school allows me to distinguish what is good from what is bad for the conservation of the environment.				
13	Large companies influence environmental protection.				
14	Citizens alone cannot contribute to the improvement of the environment.				
15	Environmental conservation is the responsibility of the government.				
16	Through my actions I can influence the conservation of the environment.				
17	I participate in the activities for the conservation of the environment that are carried out in my university.				
18	I know the concept of sustainable development correctly.				
19	Environmental protection depends on the implementation of sustainable development.				

Table A1. Cont.

	1. Total Disagreement; 2. Disagreement; 3. Agree; 4. Totally Agree	1	2	3	4
20	Environmental education is a tool to raise public awareness.				
21	The use of recycled products benefits the economy.				
22	The current economic system will eventually deplete the planet's resources.				
23	All activities that promote men are harmful to the planet.				
24	Most people do not recycle properly.				
25	At home, we separate the trash depending on whatever type it is.				
26	Garbage trucks pick up everything mixed up.				
27	I know all kinds of waste.				
28	It is no use me recycling if most people do not.				
29	At home we only separate the glass and paper from the rest of the trash, because we know where there are containers to put them.				
30	Environmental education teaches how to care for natural resources.				
31	Environmental education serves to know the environment.				
32	The current economic model is based on sustainable development.				
33	If we all helped conserve the environment, there would be no environmental problems.				
34	I can help the environment by raising awareness of those around me.				
35	It is complicated that we are all environmentally friendly.				
36	Customs influence respect for the environment.				
37	New technological advances harm environmental education.				
38	The conservation of the environment depends on each country.				
39	Environmental education is important for achieving sustainable development.				
40	Environmental education teaches how to protect the environment				

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