Analysis of Ecological Values in Future Education Professionals in Andalusia (Spain)

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Abstract: This study shows the hierarchy of values presented by first-year teacher training students studying at public universities in Andalusia (Spain), emphasising the analysis of ecological values in relation to the gender variable. For this purpose, we used a survey-type methodology with a quantitative approach. Participants were selected by means of probability sampling by clusters. The sample was finally composed of 651 students, of whom 226 were men (34.7%) and 425 women (65.3%) aged between 18 and 49 (M = 20.20 and T.D. = 3.736). The results show a high valuation of non-material aspects related to affectivity, morality, the individual and ecology, followed by values related to the body and its care, the social, the material and the aesthetic, and finally, values related to the intellectual, the political and the religious. The results show the influence of gender in the identification of ecological values and the variables that make them up, where women have higher averages in most of the items. We can therefore conclude that the gender variable influences the choice of ecological values presented by university students.

Keywords: values; ecology; test; young university students; Andalusia (Spain); agenda 2030

1. Introduction

The deterioration of our natural environment is a reality in the face of which we cannot remain impassive, which is why, as an essential and determining part of the community of life that is the Earth, we must assume our responsibility and make a sustainable planet possible for future generations. One example of this is the 2030 Agenda for Sustainable Development [1], which sets out 17 goals with 169 indivisible and integrated targets that imply a universal and common commitment to the environmental, social and economic spheres.

Beliefs about the causes and consequences of environmental degradation are motivated by values, understood as stable structures that begin to be built during the socialisation process, guiding action and constituting a framework of interpretation and action on reality [2]. Ecology, sustainability, and environmental protection are notions that young people identify with more and more every day, which is why training and awareness-raising on these issues act to facilitate the development of values. Understanding ecology involves delving into ecological principles and values as a basis for the formation of an ecological culture, understood as an educational process of a continuous nature and necessary for the development of life [3].

There is a growing interest in understanding the processes of genesis, relationship and functioning between attitudes and behaviours related to ecological values. This has been motivated, above all, by the shift from an ethnocentric to an ecocentric paradigm, which has involved two opposing ways of valuing nature that differentially influence ecological behaviour.

Different studies show how current environmental challenges have been presented in two dimensions, one of intervention, trying to bring about change, and one of management, both based on the parameters of sustainability as a positive social value [4–7].
Education cannot be apart from values since they constitute in themselves the educational fact and guide it to be present within the system, being a real or ideal, desired or desirable quality that guides human life [8]. More studies [9–13] confirm the importance of values as part of the remains of education. It is essential to foster attitudes and values-oriented towards conservation and care for the environment, being a fundamental aspect in the educational fact [14], given that they are essential to be able to acquire an awareness of the environment and make changes in behaviour and lifestyles. It is essential to ensure that all people have the relevant information and knowledge for a lifestyle in harmony with nature and sustainable development [1].

The study of ecological values in education contributes to the planning of the educational phenomenon, being an element that makes it possible to describe and evaluate the quality and effectiveness of the educational process itself [15]. Education aimed at developing such values must include an economic, social, environmental and organisational dimension, making a difference in the relational circles of lifelong learning and education in order to acquire the knowledge, skills, attitudes and values necessary to promote sustainable and ecological development [16]. Thus, ecologically focused values contribute to the sustainable development of society and a healthy lifestyle, sustainable consumption, moral values, and the promotion of social activism, highlighting the importance of valuing ecological integrity and equitable well-being [17]. There is currently a commitment on the part of the university to integrate values, in line with its role in the creation of new paradigms and knowledge, together with the generation of social change [18]. The university must develop actions that contribute to the improvement of university education in values and progress in the resolution of social, economic and environmental problems [19].

Furthermore, it is necessary to move towards the design, implementation and evaluation of multidisciplinary proposals for the learning of values in university students [20].

Therefore, in education, teaching should focus not only on theoretical and technical knowledge but also on ethical and ecological knowledge. Different studies [13–23] advocate for a training model that integrates student-centred ecological learning with the use of active methodologies, highlighting that the action lines for ecology are addressed from biodiversity, natural resources, conservation, ecological restoration, community development, social equity and environmental governance.

In this sense, more specifically, we must highlight the importance of the school and, in particular, the central role of teachers as a model for transmitting attitudes and values, which are responsible for developing an education based on care for nature and sustainability [23–26]. Therefore, we need an education based on ecological values that allows us to recover the value of the natural world and to develop an eco-sophy of reconciliation with nature [21–23]. The presence of ecological values in initial teacher training indicates openness to society, the environment and transcendence, as factors that make up personal and professional identity, enabling communication with others and with the environment and with transcendence [27]. The importance of analysing the eco-logical values of university student teachers is determined by the fact that the people who make up this group will be, in the short term, those who, in their professional practice, will become important agents for transmitting values to their students. Therefore, research on values in general, and on the ecological values of future teachers in particular, provides valuable knowledge related to the construction of the present and the future to which we aspire and, therefore, to the school model necessary for this [25–30].

Educational actions are needed that transform our habits, conceptions and perspectives that guide us in the actions to be carried out and in the forms of social participation [20].

This study aims to identify and analyse the ecological values of first-year Primary Education students studying at public universities in Andalusia (Spain), to explore the existing differences in relation to the gender variable, and to determine how they are represented in their hierarchy of values. To this end, we have set ourselves the following objectives:
• To determine the hierarchy of values presented by first-year university students in the first year of the Primary Education Degree who are studying at public universities in Andalusia (Spain) and their relationship with ecological values.
• To analyse the ecological values of the aforementioned Primary Education students and to identify the existing differences in relation to the gender variable.

2. Materials and Methods

In order to achieve the proposed objectives, we have opted for a descriptive, survey-type methodology, with a quantitative approach, using the Adapted Values Test (TVA_Adapted) as the data collection instrument. The following is a description of the process:

2.1. Participants

In order to carry out our research, data were collected in all public universities in Andalusia, specifically in the Faculties of Education Sciences. The sample consisted of 651 students selected by means of probability sampling by clusters where the primary sampling unit was the student body of all the first-year groups of the Degree in Primary Education at the Faculties of Educational Sciences in Andalusia, in order to select these groups proportionally, according to the number of students, in each Andalusian university (Table 1). Of the final sample, 226 were men (34.7%) and 425 women (65.3%) aged between 18 and 49 (M = 20.20 and T.D. = 3.736). The selected group of young people acquires a singular importance, as they have a multiplier effect, being the educators of the future, they will transmit their attitudes, beliefs and values to their pupils.

Table 1. Description of participants according to gender and age.

|                | Men  | Women | Age (Average D.T.) | N  |
|----------------|------|-------|--------------------|----|
| University of Sevilla | 22.5% | 77.5% | 19.87              | 89 |
| University of Granada   | 28.3% | 71.7% | 19.72              | 159|
| University of Almería    | 50.0% | 50.0% | 21.47              | 40 |
| University of Córdoba    | 50.0% | 50.0% | 20.06              | 82 |
| University of Huelva     | 20.3% | 79.7% | 20.16              | 74 |
| University of Jaén       | 48.4% | 51.6% | 20.37              | 128|
| University of Cádiz      | 31.2% | 68.8% | 20.13              | 16 |
| University of Málaga     | 28.6% | 71.4% | 20.67              | 63 |

2.2. Measuring Instrument

The instrument used was the questionnaire called Test de Valores Adaptado (TVA_adaptado) [31,32], which uses the technique of scoring words, grouped into 11 dimensions or factors that coincide with the groups of values it measures: corporal, intellectual, affective, individual, moral, aesthetic, social, political, ecological, instrumental and religious [8]:

1. We understand by bodily values all those qualities that we desire or deserve to be desired because of their goodness in relation to the human body, such as food, drink, rest, movement, hygiene, and beauty. Some are of necessity, and others concern desirability.
2. Intellectual values refer to activities related to the person’s rational nature in terms of their content, process or outcome: knowing, thinking, criticism, science, reading, writing, etc.
3. We understand affective values to be those that affect human beings’ affective or sentimental actions: friendship, falling in love, feelings, etc.
4. Individual values are those that refer to the person in his or her uniqueness, intimacy, independence, autonomy, freedom, etc.
5. When we speak of aesthetic values, we refer to those we desire for their beauty in its various manifestations: music, literature, sculpture, painting, etc.
6. Moral values are concerned with the malice or goodness of human actions and touch on the dignity and depths of our being: truth, justice, honesty, etc.
7. When we speak of social values, we refer to those values that make personal and institutional relations concrete, such as festivals, dialogue, trade unions, Manos Unidas, etc.

8. Political values are directly related to the democratic life of citizens and their political organisation, both in terms of process and organisation: voting, constitution, democracy, political parties, trade unions, etc.

9. Ecological values are those that allude to knowledge and care of the environment: gardens, beaches, mountains, rivers, etc.

10. Instrumental or economic values are appreciated by people more as a means of life than as an end because of the benefits they bring us: housing, clothing, money, cars, technology, etc.

11. Religious or transcendent values refer to the religious sense and feeling of personal and institutional life: faith in God, sacraments, Church, message, ministers, etc.

Each dimension or value category includes 25 words or concepts that are rated on a Likert scale (1—very unpleasant; 2—unpleasant; 3—indifferent; 4—pleasant, and 5—very pleasant). Therefore, the basis of the test lies in the reaction of liking, disliking or indifference that is produced when reading or listening to the words. For the interpretation of the data, it must be taken into account that for each value category, the highest possible positive score is 50 and the highest possible negative score is −50 so that the reaction of the subject will be more favourable the closer it is to 50 and the more unfavourable, the closer it is to −50. Zero, as well as scores close to zero, can mean indifference.

Specifically, we will focus on the identification and analysis of the set of words or items that make up the ecological values.

2.3. Quality of the Information-Gathering Instrument: Validity and Reliability

The validity and reliability parameters were used as quality criteria for the data collection instrument. For the former, content validity was taken into account by means of Kendall’s W Concordance Coefficient, with the responses of 15 experts. The results showed the level of agreement between the judges’ evaluations, obtaining coefficients close to 1. For construct validity, an exploratory factor analysis was carried out to confirm the dimensions proposed theoretically for this instrument, which would allow us to group the set of items into factors or dimensions. Specifically, principal component analysis (PCA) was applied, which is used to study instruments whose structure and dimensionality had already been analysed in previous versions. Prior to the factor analysis, the KMO= test (Kaiser–Meyer–Olkin = 0.891) and Bartlett’s test of sphericity (c2 = 116,046.830; gl = 37,675; p = 0.00) were carried out, which showed that the conditions of the variables and items were appropriate for this type of analysis. The factor analysis of the rotated matrix, by applying the VARIMAX method, confirms the existence of 11 dimensions that coincide with the theoretical construct. These 11 factors explain 44.342% of the variance.

With regard to reliability, internal consistency was measured by calculating Cronbach’s alpha coefficient [33,34]. In this study, a reliability level of α = 0.991 and α= 0.972 was achieved for the ecological values.

The statistical package SPSS v. 26 was used for this purpose.

2.4. Data Collection and Analysis Procedure

After selecting the groups by means of probability cluster sampling during the 2017/2018 academic year, the teachers were contacted and informed of the characteristics of the research and the duration of the data collection process. Subsequently, the date and time were agreed upon to carry out the process, during which the research team travelled to each Andalusian province. Data collection began with a description of the characteristics of the test and its completion, guaranteeing the confidentiality and anonymity of the participants.

The SPSS v.26 statistical package [35] was used for data analysis, using descriptive and inferential statistical techniques with non-parametric tests. The non-normal distribution of the data analysed using the Kolmogorov–Smirnov test. Specifically, the Mann–Whitney
U test was performed for several samples, in which the grouping variable is sex, assuming a significance level of $p \leq 0.05$. Finally, an exploratory factor analysis was carried out to analyse the relationships that could be established between the set of variables that formed the category of religious values and to find out, under the reduction of the dimension or category, a smaller number of underlying, unobservable factors that represent the original set of variables with the least possible loss of information.

3. Results

We begin by presenting the main results obtained from the descriptive statistics analysed in this study, which show the hierarchy of values obtained from the young people participating in this study (see Tables 2 and 3):

Table 2. Descriptive statistics obtained for each of the value categories.

| Descriptive Statistics | N  | Minimum | Maximum | Average | Typ. dev. |
|------------------------|----|---------|---------|---------|-----------|
| C_Affective            | 650| −21     | 50      | 40.58   | 8.265     |
| E_Morals               | 650| −34     | 50      | 38.65   | 9.834     |
| D_Individuals          | 650| −10     | 50      | 37.29   | 9.766     |
| I_Ecological           | 650| −25     | 50      | 34.93   | 12.038    |
| A_Corporal             | 650| −17     | 50      | 33.68   | 8.005     |
| G_Social               | 647| −16     | 50      | 30.53   | 11.010    |
| J_Instrumentals        | 650| −26     | 50      | 24.42   | 11.227    |
| F_Aesthetics           | 650| −31     | 50      | 22.90   | 11.838    |
| B_Intellectuals        | 650| −32     | 50      | 19.53   | 11.764    |
| H_Politicians          | 650| −33     | 50      | 15.50   | 12.434    |
| K_Religious            | 649| −50     | 50      | 6.64    | 21.093    |

Table 3. Descriptive statistics obtained for each of the ecological value variables.

| Descriptive Statistics | N  | Minimum | Maximum | Average | Typ. dev. |
|------------------------|----|---------|---------|---------|-----------|
| Organic farming        | 651| 1       | 5       | 3.98    | 0.943     |
| Clean air              | 650| 1       | 5       | 4.72    | 0.524     |
| Biodiversity           | 651| 1       | 5       | 4.43    | 0.725     |
| Forest                 | 651| 1       | 5       | 4.55    | 0.669     |
| Sustainable development| 651| 1       | 5       | 4.43    | 0.679     |
| Ecologism              | 651| 1       | 5       | 4.36    | 0.748     |
| Renewable energy       | 651| 1       | 5       | 4.50    | 0.638     |
| Fauna                  | 651| 1       | 5       | 4.55    | 0.655     |
| Unleaded petrol        | 651| 1       | 5       | 3.68    | 0.929     |
| Green peace            | 651| 1       | 5       | 4.13    | 0.836     |
| Garden                 | 651| 1       | 5       | 4.47    | 0.666     |
| Lake                   | 651| 2       | 5       | 4.51    | 0.626     |
| Rain                   | 651| 1       | 5       | 4.17    | 1.047     |
| Flower pots            | 651| 1       | 5       | 4.06    | 0.861     |
| Mountain               | 651| 1       | 5       | 4.41    | 0.758     |
| Snow                   | 651| 1       | 5       | 4.47    | 0.751     |
| Natural park           | 651| 1       | 5       | 4.54    | 0.634     |
| Beach                  | 650| 1       | 5       | 4.71    | 0.599     |
| Recycle                | 651| 2       | 5       | 4.36    | 0.678     |
| Reforesting            | 651| 1       | 5       | 4.31    | 0.784     |
| River                  | 651| 2       | 5       | 4.49    | 0.678     |
| Hiking                 | 651| 1       | 5       | 4.32    | 0.886     |
| Sun                    | 651| 1       | 5       | 4.67    | 0.590     |
| Vegetation             | 651| 1       | 5       | 4.51    | 0.669     |
| Green areas            | 651| 1       | 5       | 4.55    | 0.634     |

N valid (according to list) 649
The descriptive results shown, and more specifically the arithmetic means, group the categories of values into those above 30, affective, moral, individual, ecological, bodily and social values, and those below 25, such as instrumental, aesthetic, intellectual, political and religious values. The value category that stands out above the others is affective values, with a mean of 40.58. Close to affective values are moral values (mean of 38.65). The category of individual values is very close to the previous one (37.29).

This is followed by the categories of ecological values (mean 34.93). Close behind are bodily values (33.68). To finish this block of value categories with a mean above 25, we find social values (30.53).

Within the group of values below 25 are the instrumental values (24.42), closely followed by the aesthetic values category (with an average of 22.90).

The next category of values is intellectual values, with a mean of 19.53. Political values also appear with an average close to the previous one, 15.50. Special mention should be made of the results obtained by the category of religious values, which obtained an average of 6.64. With respect to the consensus of the evaluations made, they are the ones that obtained the least agreement, with a standard deviation of 21.093.

The originality of this test lies in the evaluation of 25 words in each of the value categories, which allows us to detect the different meanings of the value, i.e., the aspects that are more or less valued or rejected. We will focus on this aspect in order to analyse the ecological values. Below are the results of the analysis of the words that make up the ecological values factor, as shown in Table 3.

As can be seen, all the variables have very positive ratings above 4, i.e., from pleasant to very pleasant. Only two variables are rated positively, with a tendency towards indifference: organic farming (3.98) and unleaded petrol (3.68), with the most negative rating. The highest ratings were found for the variables clean air (4.72) and beach (4.71).

After the global analysis, we carried out a descriptive and inferential comparative analysis based on the gender identification variable and the variables referring to the category of ecological values (Table 4). The results obtained by applying the Mann–Whitney U test for several samples, using gender as the grouping variable, are shown below.

Table 4. Influence of gender on the valuation of items forming the ecological values.

| Items                  | Men  | Women  | Mann-Whitney U Test |
|------------------------|------|--------|---------------------|
| Organic farming        | 4.02 | 3.96   | 46,788.500 0.568    |
| Clean air              | 4.61 | 4.78   | 40,691.000 0.000    |
| Biodiversity           | 4.39 | 4.45   | 43,982.000 0.047    |
| Forest                 | 4.52 | 4.57   | 45,017.500 0.121    |
| Sustainable development| 4.42 | 4.45   | 45,745.000 0.263    |
| Ecologism              | 4.29 | 4.39   | 44,246.500 0.068    |
| Renewable energy       | 4.49 | 4.50   | 47,043.500 0.624    |
| Fauna                  | 4.50 | 4.58   | 44,710.000 0.088    |
| Unleaded petrol        | 3.63 | 3.70   | 45,905.000 0.320    |
| Green peace            | 4.01 | 4.20   | 41,855.500 0.004    |
| Garden                 | 4.35 | 4.53   | 41,229.000 0.001    |
| Lake                   | 4.40 | 4.57   | 41,332.500 0.001    |
| Rain                   | 4.12 | 4.20   | 45,179.500 0.176    |
| Flower pots            | 3.98 | 4.11   | 44,087.000 0.068    |
| Mountain               | 4.39 | 4.43   | 46,109.000 0.347    |
In the analysis of the differences according to the sex of the items that make up the ecological value, as we can see in Table 5, women obtain higher average results than men in all the items except in ecological agriculture (M = 4.02; SD = 0.904) and hiking (M = 4.37; D = 0.786). The items with statistically significant differences are fresh air (p = 0.000), biodiversity (p = 0.047), green peace (p = 0.004), garden (p = 0.001), lake (p = 0.001), snow (p = 0.024), natural park (p = 0.017), beach (p = 0.000), river (p = 0.038), sun (p = 0.000) and green area (p = 0.002). In addition, there are higher average ranges for women in all the items with values above 328.00, except in ecological agriculture (331.47) and hiking (328.19), which are exceeded, with very approximate values, by men and which coincide with the average values.

Table 4. Cont.

| Items        | Men M | DT | Women M | DT | U     | p    |
|--------------|-------|----|---------|----|-------|------|
| Snow         | 4.40  | 0.762 | 4.51     | 0.740 | 43,547.500 | 0.024 |
| Natural park | 4.47  | 0.661 | 4.59     | 0.613 | 43,345.500 | 0.017 |
| Beach        | 4.59  | 0.690 | 4.77     | 0.536 | 41,206.000 | 0.000 |
| Recycle      | 4.30  | 0.718 | 4.40     | 0.655 | 44,887.000 | 0.129 |
| Reforesting  | 4.28  | 0.777 | 4.33     | 0.790 | 46,027.000 | 0.339 |
| River        | 4.40  | 0.751 | 4.54     | 0.633 | 43,886.500 | 0.038 |
| Hiking       | 4.37  | 0.786 | 4.30     | 0.936 | 47,530.000 | 0.811 |
| Sun          | 4.53  | 0.681 | 4.75     | 0.520 | 40,258.000 | 0.000 |
| Vegetation   | 4.46  | 0.675 | 4.54     | 0.662 | 44,381.500 | 0.066 |
| Green areas  | 4.45  | 0.667 | 4.60     | 0.611 | 42,091.000 | 0.022 |

Table 5. Kaiser–Meyer–Olkin (KMO) and Bartlett’s test.

| Kaiser–Meyer–Olkin measure of sampling adequacy | 0.956 |
|-----------------------------------------------|-------|
| Bartlett’s test of sphericity | Approximate Chi-square | 10,057.097 |
|                                | gl    | 300 |
|                                | Sig.  | 0.000 |

The highest mean results obtained by females appear in the items fresh air (M = 4.78; SD = 0.481), beach (M = 4.77; SD = 0.536) and sun (M = 4.75; SD = 0.520). For men, the data show higher means for the same items, fresh air (M = 4.61; SD = 0.573), beach (M = 4.59; SD = 0.690), and sun (M = 4.53; SD = 0.681). The lowest values obtained by women appear in the items organic farming (M = 3.96; SD = 0.964) and unleaded petrol (M = 3.70; SD = 0.951) and in men, unleaded petrol (M = 3.63; SD = 0.883) and flower pots (M = 3.98; SD = 0.879), not exceeding 4.00 in any case.

Finally, multivariate factor analysis was used as a multivariate technique to find out how the variables that form part of the ecological values category are related to each other. As a preliminary step, the KMO = test (Kaiser–Meyer–Olkin = 0.956) and Bartlett’s test of sphericity (c2 = 10,057.097; gl = 300; p = 0.00) were carried out, which showed that the conditions of the variables or items were appropriate for this type of analysis. The correlation matrix also provided us with data on the high and medium (linear) correlation between the variables and with a value of the determinant of the correlation matrix of 0.001, indicating that the degree of intercorrelation of the variables is very high.

The total variance explained (Table 6) by the first three components is 58.915% of the total variance explained. The component matrix informs us of the relationship between the variables, grouping them together and reducing the original data.
From the factor analysis (rotated component matrix), we can conclude that the variables are grouped into three main groups (Table 7):

- Component 1: the association of the variables of environmentalism, renewable energy, sustainable development, biodiversity, organic farming, reforestation, green peace, unleaded petrol, recycling.
- Component 2: the association between rain, flower pots, hiking, mountain, snow, river, natural park.
- Component 3: the variables sun, fresh air, beach, lake, fauna, forest, green area, vegetation, garden.

Table 6. Total variance explained.

| Component | Initial Eigenvalues | Sum of the Squared Saturations of the Extraction | Sum of the Saturations Squared of Rotation |
|-----------|---------------------|-----------------------------------------------|------------------------------------------|
|           | Total | % of Variance | Accumulated % | Total | % of Variance | % Cumulative | Total | % of Variance | % Cumulative |
| 1         | 11.520 | 46.080 | 46.080 | 11.520 | 46.080 | 46.080 | 5.514 | 22.057 | 22.057 |
| 2         | 1.866  | 7.462  | 53.542 | 1.866  | 7.462  | 53.542 | 4.707  | 18.828 | 40.885 |
| 3         | 1.343  | 5.372  | 58.915 | 1.343  | 5.372  | 58.915 | 4.507  | 18.030 | 58.915 |

Extraction method: principal component analysis

Table 7. Rotated component matrix.

| Ecological Values | Component | 1 | 2 | 3 |
|-------------------|-----------|---|---|---|
| Ecologism         | 0.796     | 0.119 | 0.313 |
| Renewable energy  | 0.768     | 0.126 | 0.295 |
| Sustainable development | 0.761 | 0.105 | 0.326 |
| Biodiversity      | 0.722     | 0.134 | 0.350 |
| Organic farming   | 0.641     | 0.244 | |
| Reforestar        | 0.561     | 0.430 | 0.129 |
| Green peace       | 0.538     | 0.395 | 0.175 |
| Unleaded petrol   | 0.531     | 0.352 | 0.194 |
| Recycle           | 0.483     | 0.438 | 0.214 |
| Rain              | 0.141     | 0.730 | |
| Flower pots       | 0.308     | 0.676 | 0.149 |
| Hiking            | 0.168     | 0.662 | 0.252 |
| Mountain          | 0.244     | 0.632 | 0.434 |
| Snow              | 0.597     | 0.572 | 0.513 |
| River             | 0.284     | 0.563 | 0.533 |
| Natural park      | 0.299     | 0.290 | 0.686 |
| Sun               |           |     |    |
| Fresh air         | 0.407     | 0.670 |    |
| Beach             |           |     |    |
| Lake              | 0.336     | 0.500 | 0.552 |
| Fauna             | 0.528     | 0.228 | 0.543 |
| Forest            | 0.524     | 0.204 | 0.539 |
4. Discussion

Values education refers to the process that intervenes in the development of a person’s morality in all its dimensions, which is why all universities have an intentional strategy that promotes values education, developing a continuous training process that requires constant precision of the objectives to be achieved [36]. In this study there is a high estimation of affective, moral and individual values, which denotes a youth that has a strong personality and concern for humanisation, justice and social and affective relationships, coinciding with the results obtained in studies by the authors Benninga [37], Berkowitz and Bier [38], Elzo et al. [39], García, Barbello and Muñoz [40], González-Anleo and López-Ruiz [41], and González-Gijón and Soriano [42].

Personality expresses the values that people have for the human being, reflecting the formation of the human being’s potentialities, as well as his or her intellectual, spiritual and physical faculties. Collier [43] and Daher [44] affirm that ecological, bodily and social values have higher than average scores, showing the importance of young university students to the body, health, ecology and social relations and problems.

Similarly, Baburkin and Lymarev [45] and Krumrei-Mancuso [46] state that the below-average scores for intellectual, aesthetic and instrumental values show a youth that is not very materialistic and interested in beauty or art, or the need for intellectual training, being their current daily activity. The last values in the hierarchy, referring to political and religious values, which are far removed from the preceding ones, especially religious values, denote a lack of concern for politics, together with a rejection of and little concern for religion. Hill and Den Dulk [47] and Black [48] agree that the high standard deviation of the religious value is noteworthy. The Santa María Foundation [41], the Ministry of Social Affairs [49], Queen Sofia Centre on Adolescence and Youth [50], INJUVE [51], etc., highlight the accelerated decline of religious values in the general population and among young people in particular [39,41,51–54].

As we have mentioned, the high scores for ecological values reveal the importance that young university students attach to ecology, which can be seen in the high scores for all the variables that make up this value, with the exception of ecological agriculture (3.98) and unleaded petrol (3.68), with the most negative scores related to the indifference that these concepts transmit to them. However, there are two words that define young people’s most highly valued concept of ecology: clean air and beach. Different studies [55–58] show the high score obtained since the categories related to ecological values produce a greater liking in students.

With respect to the gender variable, women obtain higher mean scores than men in all items except organic farming and hiking... coinciding with the study carried out by Magaña, Quiles and Benítez in 2016 [56]. In addition, gender influences the value given to the words fresh air, biodiversity green peace, garden, lake, snow, natural park, beach, river, sun and green area, i.e., there are significant differences between men and women. The highest average results obtained by the participants appear in the items pure air, beach and sun, in which men and women coincide, and the lowest in the items ecological agriculture and unleaded petrol, in women, and in men, unleaded petrol and flower pots.

The factor analysis determined that the variables or words that were part of the ecological value are grouped into: Component 1, which includes the variables greening, renewable energy, sustainable development, biodiversity, organic farming, reforest, green

| Ecological Values | Component 1 | Component 2 | Component 3 |
|-------------------|-------------|-------------|-------------|
| Green areas       | 0.388       | 0.450       | 0.526       |
| Vegetation        | 0.397       | 0.470       | 0.517       |
| Garden            | 0.374       | 0.468       | 0.509       |
peace, unleaded petrol, recycle and relate to goal number 7—affordable and clean energy of the 2030 Agenda for Sustainable Development [1] which guarantees access to affordable, safe, sustainable and modern energy for all people. Component 2, which describes the association between rain, pots, hiking, mountain, snow, river, natural park, and component 3, which includes the variables sun, fresh air, beach, lake, fauna, forest, green space, vegetation, garden, both of which are related to goal 11—sustainable cities and communities of the 2030 Agenda for Sustainable Development [1], which provides universal access to safe, inclusive and accessible green spaces and public spaces. This study also serves to rethink curricular aspects related to university teacher training. Researching ecological values in student teachers also implies a change in their conception, i.e., we advocate a “new” teacher who acts as an agent of social change, as a mediator who transforms the ecological into an educational value and who must transmit it in such a way that it becomes an experience for his or her pupils, enabling them to attain the status of a personal principle.

To conclude, we should point out that, as in any study, there are a series of limitations, which in our case have been produced by the sample selected, which is limited to the Autonomous Community of Andalusia and the geographical region that is located in the south of Spain and many geographical and climatological characteristics have influenced the results obtained, to young university students, being able to expand to other regions and other degrees, in future research.

As a future line of research, it is proposed to go deeper into the commitment to an ecology of young people using other qualitative and quantitative measurement instruments such as the scale developed by Amérgo, Garcia and Córites [59] to analyse pro-environmental attitudes and behaviours or the environmental action scale (EAS) designed to assess the degree of involvement in collective actions in favour of the environment [60,61].

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