

Perception about Sustainable Development Goals among Erasmus students in a Spanish university

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Abstract

Purpose — The main objective of this work is to analyse the positioning of young people in the face of the challenges posed by the SDGs. It focuses on the case of Erasmus+ students at a Spanish university and tries to evaluate the importance of each of the SDGs for them.

Design/methodology/approach — Based on primary data obtained through a survey of more than 300 young people, factor analysis was applied to evaluate the importance assigned to each SDG, and quantifying the degree of concern assigned to each of them.

Findings — Results show a high degree of concern for all the SDGs among Erasmus students, although they have done so with different levels of intensity. College students especially value education. Women are more concerned about socioeconomic problems. Furthermore, surprising results have been found in terms of gender equality, which indicates the need to deepen this analysis.

Originality/value — This work contributes to the academic literature, still limited but growing, on how Erasmus students perceive the Sustainable Development Goals (SDGs) and to what level they feel committed to these objectives. Furthermore, it can be helpful for public policy managers regarding a specific group of young university students and a hot topic such as sustainability.

Keywords: Sustainable Development Goals, University Students, Youth Concerns on Sustainability, Decent Work, Higher Education

1. Introduction

Since the WSSD Brundtland Commission (1987) coined the term "sustainable development", sustainability concerns are commonplace for individuals, institutions and governments, acknowledging the "three pillars" approach (environmental, economic and social) (Campagnolo et al., 2018). Societies seek global sustainability, as a goal, but without analysing which social group is more involved. Young people are expected to be more engaged, as environmental impacts will affect them more. The UN 2030 Agenda states that "children and youth are key agents of change". In addition, unequal societies or wasteful use of resources also negatively affect those who will live longer on the planet (Narksompong & Limjirakan, 2015). While some research has addressed the issue of youth and sustainability (Polese et al., 2018), a comprehensive analysis of youth engagement is lacking. The closest recent research is by Sharma et al. (2023) on students' knowledge of the Sustainable Development Goals (SDGs) and sustainable entrepreneurship, and Ahamad & Ariffin (2018) on sustainable consumption among university students. The relevance of young people's role in sustainability has also been highlighted in numerous studies, such as the one on climate change by Shulla, K., & Leal-Filho (2023).

This paper analyses the concerns of young people, essential drivers for the achievement of the SDGs by 2030, on sustainability. It uses an empirical analysis focusing on those participating in higher education, especially in developed countries. These young people will be.

This work contributes to the academic literature, still limited but growing, on how Erasmus students perceive the Sustainable Development Goals (SDGs) and to what level they feel committed to these objectives by primary data collected. Furthermore, it can be helpful for public policy managers regarding a specific group of young university students and a hot topic such as sustainability.

The UN pointed out the importance of youth role on sustainability from their capability from fifth critical points:

- Critical thinkers for identifying and challenging existing power structures and barriers to change
- Change-makers: Their activism has the power to act and mobilise others.
- Innovators: they are digital natives and have direct knowledge of and insights to address issues difficult to access for adults and they face and can offer new ideas and alternative solutions.
- Communicators: young people can extend the SDG in communicating among peers and communities, both at the local level and worldwide.
- Leaders: empowering youth, they can drive change in communities and countries, leading organisations and networks, for more inclusive and equalitarian societies (United Nations, 2022).

Young people must assume future leadership and their commitment to sustainable development is crucial, so it is important to understand their concern for this issue in general and its different aspects. University students are especially relevant, as their knowledge and skills will make them the future "decision-makers" (Kravale-Pauliņa *et al.*, 2018). The Millennium Development Goals

(United Nations, 2009) before and the Sustainable Development Goals (SDGs) (United Nations, 2015) today, outline specific targets for achieving sustainability.

Academic literature has explored the desire of young people to contribute to sustainable development, including university students (Buchtele & Lapka, 2021) and younger students (Sass et al., 2021). Sánchez-Carracedo et al. (2019) point out that universities are ideal places to foster a culture of sustainability and that students' attitudes are crucial to fostering sustainable attitudes. It is therefore important to understand students' attitudes and concerns about the SDGs and each specific goal. Studies, such as Zamora-Polo et al. (2019) and Dlouhá & Pospíšilová (2018), have examined university students' knowledge of the SDGs and competences for sustainability, highlighting a gap in knowledge of the SDGs. Leiva-Brondo et al. (2022) found intermediate knowledge of sustainability among students, but low knowledge of the SDGs, emphasising the need for higher education institutions to play a key role in training future professionals and implementing strategies to improve SDG knowledge and compliance.

This work assesses young people's engagement with sustainability, focusing on university students, who are expected to be well prepared to address sustainability challenges. An empirical analysis has been conducted, collecting data from Erasmus students to assess their engagement with the SDGs and to analyse their concerns (YUC) regarding each of the SDGs.

This paper aims to analyse young university students' concerns about sustainability across the SDGs, assessing each goal and creating a variable with global information on all 17 goals. This research adds to the academic literature on university students' positioning of the sustainable development aspects of the SDGs. The use of primary data with measurement scales for each of the SDGs allows for comparative analysis, which is of great interest to both academics and policy makers in sustainability, youth and education. The document is structured as follows: Sections 1 and 2 review the importance of engaging younger generations in sustainable development and the state of play. Section 3 explains the methodology, section 4 presents the results and discussion, and the final section offers conclusions and future research directions.

2. The SDG, Agenda 2030 and youth concerns

The 2030 Agenda culminates the discussions and efforts developed by the United Nations for human and sustainable development since the 1990s. It represents a step forward with respect to the Millennium Development Goals. The 2030 Agenda brings together progress and sustainable development. It is an important challenge for everyone, where young people will have a leading role as recipients of the results, but also as actors in its fulfilment. Among the youngest, the role of university students stands out, as they are called to form part of a social group of technicians with a high degree of knowledge, whose attitude and perception of the importance of the SDGs will be very relevant.

The European Union and its member countries have shown an unequivocal commitment to the Agenda. Following the pandemic, the Council of Europe maintained its commitment to monitoring progress towards the 2030 (Council of the European Union, 2021).

To advance the SDGs, the support of multiple actors is necessary, in particular, the participation of young people (Caiado et al., 2018). Trejo Cervantes (2018), highlights their demographic weight, capacity for transformation and connection with the sensibilities of the contemporary world, as well as the fact that they are a vulnerable group that can leave no one behind.

The importance of youth concerns in relation to the SDGs has been highlighted in the academic literature, in relation to political representation (Amanuma et al., 2023), disadvantaged youth (Lalitha et al., 2024), or one of the specific SDG targets (Genon, 2024). Despite the contribution of these advances, an analysis of this relationship for each and every one of the 17 goals and their individual and comparative evaluation within the global context of the SDGs, as proposed in this paper, is missing.

Chudgar & Chavda (2023) have analysed 750 essays in which young people from over twenty African countries reflect on their communities and concerns and concluded that the global political discourse has paid increasing attention to youth and their potential and highlighted the perception that youth have been treated as a partial social actor and that there is a need to recover an approach that addresses youth concerns "from the inside", taking into account their views.

This work attempts to fill this gap in the literature by analysing the views and concerns of young people regarding the 2030 Agenda. Since young people's discourses transcend borders and national specificities and facilitate the understanding of economic and political processes (Arnot & Swartz, 2012), the study of their concerns on sustainable development becomes of recognisable value. In this context, Trejo Cervantes, (2018) pointed out that the 2030 Agenda can only be achieved if it puts young people at its centre.

Young people not only represent the clearest link between today's society and the future but also constitute a group with a specific relationship to sustainable development. For example, in relation to SDG 1 (End poverty in all its forms everywhere), young people are one of the groups particularly affected by the risk of poverty, even in the most developed countries, or SDG 4 (Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all), which is closely related to youth. However, all of the SDGs have some bearing on the concerns of young people themselves. Education is not only a right, but also has implications for the way they face their future lives. Therefore, the academic curriculum must incorporate ethical values in favour of social, environmental and economic sustainability at all educational levels. The work of young people as drivers of the SDGs is very valuable, as Michelle Bachelet pointed out during the ECOSOC Youth Forum in her capacity as United Nations Commissioner for Human Rights (United Nations, 2022).

Young people link today's society with the future and have a specific relationship with sustainable development. Although all SDGs concern young people, SDG 1 (poverty) and SDG 4 (education) are of particular relevance to them. Education influences their future, so curricula with values for social, environmental and economic sustainability are needed. Their role in advancing the SDGs is crucial, as Michelle Bachelet pointed out at the ECOSOC Youth Forum (United Nations, 2022).

Young people face difficulties in obtaining decent jobs and avoiding unemployment, which affects most countries. SDG 8 addresses this issue, focusing on the quantity and quality of jobs, which will only be possible with improved living conditions compatible with sustained, inclusive and

sustainable economic growth and decent employment. In this line, avoiding the NEETs problem is also a growing concern for governments (Ruesga Benito *et al.*, 2018).

3. Methods and research procedure

3.1. The Sustainable Development and the SDG

Various countries, groups and agents assess SDGs differently. This questionnaire targets youth and sustainability aspects. Each goal's value is quantified to identify individual concerns. Thurstone and Likert have developed numerical scale questionnaires (Young, 2017), and Likert's scale, since 1932, has been effective in psychometric studies (Willits *et al.*, 2016). This paper uses UN SDG statements (UN General Assembly, 2015) as items, with a 5-point Likert scale to quantify youth opinions on each goal.

The 17 SDGs are equally important in this study, each representing an evaluable item. The focus is on two dimensions: the individual importance of each goal and the "concern for the SDGs" as a global construct. This analysis reflects the comparative importance of each goal and provides a weighted relationship between each SDG and the overall commitment to the SDGs by university youth (YUC).

The model shown in Equation 1, shows the relationship between the concerns on SDG ($\xi = YUC$) and the seventeen development goals (x_i).

$$x_i = \beta_0 + \beta_i \xi + \varepsilon_i \quad (1)$$

$$i = 1, \dots, 17 \quad x_i = \text{SDG}_i \quad \xi = YUC$$

Equation (1) shows the variable YUC as a global measure, which has been constructed through the 17 individual measures (Likert scale items), which is equivalent to a linear regression equation, in which the dependent (explained) variable is each of the SDGs, so that we would have 17 equations (17 x_i are the 17 SDG, where $i = 1, \dots, 17$, and 1 is goal 1, 2 is goal 2, and so on). Since we have used a confirmatory factor analysis methodology, there is a relationship between the variables so that the contribution of each variable to the overall variable YUC is contextualised in the whole.

3.2. The sample and the data

The data were collected with a survey conducted among Erasmus undergraduate students at the University of A Coruña (Spain). The meaning of the SDGs and the concept of sustainability were explained to the students, as well as the importance of the involvement of all generations in assuming this commitment to preserve the planet, the economy and social environments. This topic was analyzed in the classroom and a debate was promoted to reflect on each of the SDGs. The questionnaire consisted of two parts: one with classification questions, such as age, gender, nationality, among others, and another with questions about the SDGs. To increase the number of responses obtained and to diversify the survey as much as possible, we allowed students to share the link with their peers, of any level of education and nationality.

The Likert scale is widely used in socioeconomic research (Willits et al., 2016), and for SDG assessment by Guevara-Fierro et al. (2023), among others. In this work, a 5-point Likert scale is used (1 "not at all concerned" and 5 "extremely concerned"), recommended by Aybek and Toraman (2022) for its reliability and simplicity.

The procedure to obtain the answers was through a form in Google Drive, which the students disseminated through social networks. Thus, the data were collected through a "snowball procedure", a formula increasingly accepted in the academic world (Goodman, 1961), especially for exploratory studies. More than five hundred responses were obtained, and after filtering, the final sample consisted of 314 valid responses from thirty different countries of birth (Argentina, Austria, Belgium, Croatia, Cyprus, Czech Republic, Denmark, Finland, France, Georgia, Germany, Hungary, India, Italy, Lithuania, Mexico, Netherlands, Peru, Poland, Portugal, Romania, Russia, South Africa, South Korea, Spain, Switzerland, Turkey, Ukraine, United Kingdom, United States), 80% of whom were born in the European Union. Of the remaining 20%, Georgian students (14% of the sample and 71% of those born outside Europe) stand out. The composition of the sample is shown in Table 1.

Table 1. Composition of the full sample

Item	Information	Frequency	Percentage	Cumulative percentage
Age	From 14 to 18	85	27.07	27.07
	19 to 22	84	26.75	53.82
	23 to 30	104	33.12	86.94
	More than 30	41	13.06	100.00
Gender	Female	186	59.24	59.24
	Male	128	40.76	100.00
Studies Level	Primary	4	1.27	1.27
	High School	54	17.20	18.47
	University	256	81.53	100.00
Total	Total	314	100.00	100.00

Source: authors' own from primary data.

There is no universally accepted international definition of the age group that comprises the concept of youth. However, the United Nations' conception, which defines youth as those aged between 15 and 24, is commonly accepted, as is the European Union's statistical office, Eurostat, but it is not uncommon to find data for young people up to the age of thirty (EU demographic statistics, grouping the total number of young people in the age-groups 15-19, 20- 24 and 25-29). For the purpose of this paper, the concept of youth is contextualised in the environment of Erasmus students, which covers the ranges of undergraduate, postgraduate and doctoral studies, hence, we have considered relevant the group with ages over 18 years, it should be noted that some students are over 29 years old (those involved in doctoral programmes), which account for 12.52% of the total. Since the aim of this research is to analyse the concern of young Erasmus students regarding the SDGs, to fill this gap in the research conducted so far, it is to accommodate all responses that fit into the two concepts articulated here: "young people and Erasmus students", which is summarised in Table 2.

So, taking into account that our work mainly focuses on university students, we have decided to eliminate the 58 responses corresponding to people not included in that group, so that we have achieved a total of 256 valid responses, of which 148 correspond to women and 108 to men. The

composition of the specific sample used for the analysis of the commitment expressed by university students to the SDG is shown in Table 2.

Table 2. Composition of the sample for university students

Item	Information	Frequency	Percentage	Cumulative percentage
Age	18 to 22	125	48.83	48.83
	23 to 30	99	38.67	87.50
	More than 30	32	12.50	100.00
Gender	Female	148	57.80	57.80
	Male	108	42.20	100.00
Total	Total	256	100.00	100.00

Source: authors' own, from the sample obtained for the analysis. The structure of the sample reflects the wide range of opinions collected for this study for university students.

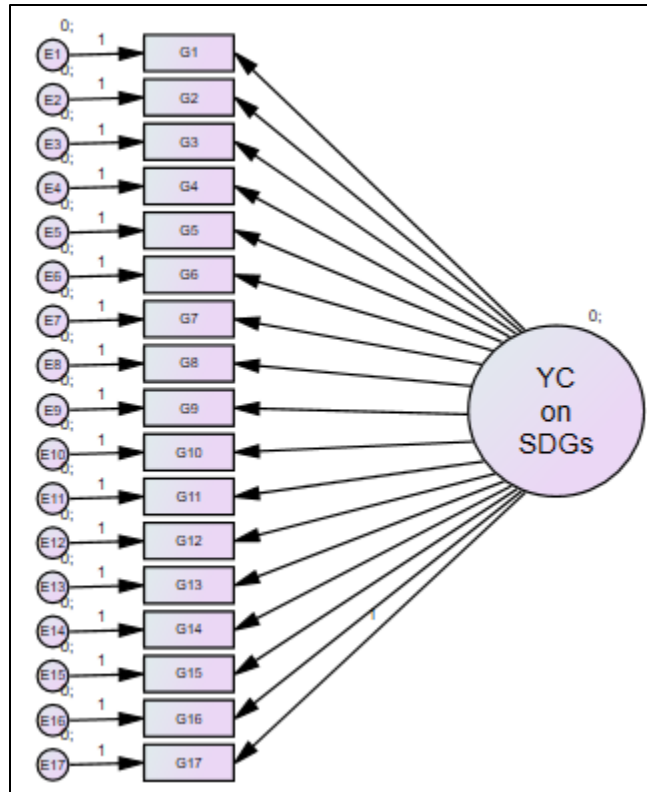
3.3. Data analysis

A factorial analysis was conducted. The sustainability understood by the United Nations is reflected in the proposed 17 Goals. Then, from a methodological point of view, this research is based on this well-stated concept of sustainability, composed of all the issues contained in the different goals. The most suitable methodology for this proposal is a confirmatory factorial analysis. It was carried out through the software IBM Statistics 29-SPSS -Statistical Package for Social Sciences- and the AMOS - Analysis of a Moment Structures - in its 29st version.

This method is adequate for evaluating those variables that are not easy to appreciate in a direct way (Wilson, 2004), the so-called, latent variables. In this case, this “latent variable” is the global concept of Sustainable Development, from the perspective of the set of the SDG. This variable has been constructed through the 17 SDG, which data were known employing those collected from the survey.

The proposed model displayed in Equation 1, is actually composed by seventh regression equations, and is represented in Figure 1 by a path diagram, where the circle is the constructed variable and the rectangles are the observable ones errors. The value of the dependent variable is created by a confirmatory factorial analysis and constructed by its components (the seventh SDG), the relationship among (the data obtained from the survey), and the small circles on the left represent the measurement them is that the concern latent variable explains the individual concern on each of the seventh SDG by a regression analysis, as is show in equations 1 to 17.

Figure 1. The proposed model



Source: authors' elaboration

This methodology not only gives the possibility of the construction of a variable that cannot be measured directly, but it also allows to state a relation among the constructed variable all the observable variables that have participated in its construction and that are part of it. Thus, it makes possible to know to what extent each of the observable variables influences on the construction of the latent variable. This is a very interesting point for the objective of this paper since the concerns about each and all the single goals is the focus of the analysis.

This work also examines differences in concerns based on the personal, cultural, educational, and sociological characteristics of surveyed youth.

4. Results and Discussion

The results obtained show that there is a significant concern for the SDGs among the respondents to our survey. These results are in line with other studies related to the involvement of young people in socio-demographic, environmental and economic issues (Chudgar & Chavda, 2023), testing their social awareness and their connection to the world around them, both socially and environmentally. The following sections show the results and provide interpretations of the results of our own empirical research, in the context of the existing academic literature and the gap it aims to fill. The results obtained for the group of university students analysed show a great interest in education (ranked third in terms of importance), in agreement with other studies, such as the one by Chudgar & Chavda (2023).

4.1. Main concerns of youth university students

A first approximation was made by analysing the descriptive statistics of each and every one of the 17 SDGs, calculating the mean, median and mode, as well as the standard deviation. In the first view, it is perceived that young people are very concerned about all the SDGs. In Table 3, all the goals evaluated are rated above the mean value of 3.75, which means a significant concern for commitment to all sustainable issues, especially considering that the maximum possible value is 5, according to the Likert scale used. The average for all objectives is 4.02.

A more detailed analysis points out the essential aspects of survival (goals 2 and 6) related to hunger and access to water, for example. A more detailed analysis points out the essential aspects of survival (goals 2 and 6) related to hunger and access to water, for example. On the other side, goals 8 (economy and employment), 10 (Inequality), 7 (energy), 17 (global partnership), 12 (consumption and production) and 9 (infrastructure, industrialization and innovation), among others, seem to be less considered among the great youth concerns (see Table 3).

Table 3. Descriptive statistics for European youth concerns (YUC) about SDG by rating

UN-SDG: Goals	Mean	Median	Mode	Standard Deviation
G 1	4.14	4	5	1.01
G 2	4.35	5	5	0.91
G 3	4.14	4	5	0.890
G 4	4.21	4	5	0.90
G 5	3.99	4	5	1.11
G 6	4.27	5	5	0.92
G 7	3.93	4	4	0.91
G 8	3.96	4	4	0.91
G 9	3.75	4	4	0.91
G 10	3.94	4	5	1.02
G 11	4.02	4	5	0.90
G 12	3.76	4	4	1.00
G 13	4.09	4	5	1.00
G 14	4.04	4	5	0.98
G 15	3.97	4	5	1.05
G 16	4.09	4	5	0.94
G 17	3.77	4	4	0.97

Source: authors' elaboration from data collected. The high values of the median and mean are scores indicate that importance that students give to all goals.

The interpretation of these lower rated goals probably relates to the countries of origin of the students surveyed (Bonvillain, 1995), mainly from the European Union, as these problems do not affect them directly and are not visible from developed countries. The inclusion of Goal 8 (Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all) in this group is surprising, given that youth unemployment is a major problem worldwide, including in the European Union (Picatoste, Pérez-Ortiz, & Ruesga-Benito, 2018; Picatoste, Pérez-Ortiz, Ruesga-Benito, & Novo-Corti, 2018). An interpretation of means and medians is useful, but must be complemented with more in-depth analyses, such as those carried out in section 4.3, for more substantiated explanations.

Paying attention to the values of the model (that is to say the most repeated answers in the survey) in Table 3, it is possible to see which the most valuable SDG are for the enquired persons. 12 of the 17 goals are considered extremely important for most university students (Goal 1, 2, 3, 4, 5, 6, 10, 11, 13, 14, 15 and 16, with 46,9%, 59.8%, 42.6%, 47.7, 43.4%, 53.9%, 35.5%, 36.3%, 44.9%, 40.6%. 41.4% and 39.1% responses, respectively). Goals 7, 8, 9, 12 and 17, have a lower value for the median, but it rises to 4 points of 5, which is a very high value. The percentage for respondents with value 4 were 41.4%, 40.2%, 40.2%, 40,6% and 39.5%, respectively. Nevertheless, none of the goals with mode 4 has a mean value under 3.7 points. The interpretation of the values drives to an unmistakable conclusion: all goals are important when the YUC are analysed, and it is only remarking the results of previous research (Chudgar & Chavda, 2023; Genon, 2024).

It deserves to be highlighted that Goal 8 in which decent work is talked about is not among the greatest concerns. If a ranking is made based on the average values of the answers, this goal would occupy the 12nd place, that is, it would be in the third quartile concerning the YUC. This value is compatible with the situation of the respondents to the survey, since they come mainly from European Union, and their view may be different from the youth's opinion in other countries or regions, as it was pointed out by Caiado et al. (2018) and Amanuma et al. (2023), among others.

However, from the factorial analysis approach for the construction of the latent variable YUC on SDG, the results indicate that the corresponding standardized coefficient of Goal 8 is 0.734 (P-value <0.001) and would position it as the sixth coefficient higher in the study, so it follows that the global concern for sustainability largely explains (R-squared 0.552) concern about this goal. The relationship between both variables would be given by equation 2. This result indicates that whenever the concern for sustainability in general increases in one unit, the concern for SDG8 will increase in 0.7 units, being general sustainability able to explain 53.8% of Goal 8's variance.

$$SDG8 = 0.734 YUC \quad (2)$$

Equation (2) shows high involvement of surveyed youth in this target, with a standardized coefficient of 0.708, above the average of all coefficients. This indicates a higher-than-average concern for this goal among the 17 SDGs, providing valuable context beyond individual goal analysis (see Table 3).

Similarly, one could write all the equations corresponding to the remaining 16 goals, and perform a similar analysis as we have done for equation 2, since the relevant data are shown in Table 4.

4.2. The university and non-university students' differences on UN-SDG concerns

This paper focuses on the study of young university students and therefore, at an empirical level, uses the data collected from the sample shown in Table 2. However, taking into account that the initial sample obtained included a group of non-university students (shown in Table 1), it was possible to carry out a comparative analysis between the perceptions of university and non-university students, and to analyse whether young people's concern about the SDGs varies according to their level of studies. To analyse these differences, beyond the mean values of the responses, we proceeded to apply a comparison of means study for independent samples, using Student's t-test, which is the usual procedure when comparing two groups (in this case, university and non-university students), to check whether there are differences due to belonging to a specific

group and whether we can affirm that these differences are really due to belonging to that group and not to other reasons.

The Student's t-test uses different indicators if the variances of the groups to be compared are equal or different; therefore, it is necessary to know the variance of the data of each of the groups beforehand; this prior step is carried out using Levene's test. In this case, the Levene test indicates that equal variances should be assumed for all goals, except for Goal 6 "Ensure availability and sustainable management of water and sanitation for all" (with a p-value 0.031 for the Levene test). The t-test indicates that the only Goal where statistically significant differences were found, that is, the differences are due to group membership and not to any other variable that might have an influence, (with a p-value 0.022) was Goal 5 "Achieve gender equality and empower all women and girls". 4.34, and 3.99 were the values of the means for non-university and university students, respectively. This is an amazing and unexpected result, but additional research should be made to come to a strong explanation about it. At the moment it is an interesting achievement of this research and points out a new direction for the analysis of gender concerns, as it suggests that a higher level of education would lead to a lower awareness of the importance of gender equality.

In this particular case, when students were asked about this result, different responses were argued, on the one side, some of them indicate that for their generation this issue is absolutely assumed and that is why they are not too much concerned, on the other side, other groups of students indicate that this results must be analysed jointly with the different responses of women and man, as well as together with the origin country of the students. The group supporting this last point of view argued that the cultural conditions and educational assumptions about gender's roles make the difference. Anyway, it is clear that this a starting point for a new debate that deserves to be analysed independently and requires deeper exploration.

The fact that the non-university students were more concerned about gender equality was justified by university students based on access to education as a way of avoiding these differences. The lower grades were on the responses of university students, and they explain that the university women are less discriminated that the non-university, on the other side, students argue that men with university studies are more procaine to accept gender equality and that could explain this result. In any case, a more thorough analysis should be carried out to substantiate this result.

4.3. The sustainable development and the YUC about SDG

The "European Youth Concern about the Sustainable Development Goals" concept was built on concerns related to each SDG (Figure 1) through factorial analysis. The results of the confirmatory analysis are depicted in Figure 2 and Tables 4 and 5.

Figure 2. The results of the confirmatory analysis: Graphs

distributed in each of the 17 items, corresponding to the 17 goals. In this way, we have been able to obtain a consistent measure of young people's concern for the SDGs by assessing their concern for each of the goals.

The weight that each goal has in the context of young people's concerns (factor loadings) would be given by the coefficients shown in Table 4 and their detailed explanation would correspond to that given in previous paragraphs for goal 8, by means of equation 2.

Table 4. Standardized Regression Weights for the construction “YUC on SDG”

		Estimate	P-value	Squared Multiple Correlations
UN_SDG_Goal_1		0.680	***	0.462
UN_SDG_Goal_2		0.690	***	0.477
UN_SDG_Goal_3		0.706	***	0.499
UN_SDG_Goal_4		0.751	***	0.563
UN_SDG_Goal_5		0.710	***	0.504
UN_SDG_Goal_6		0.739	***	0.546
UN_SDG_Goal_7		0.678	***	0.459
UN_SDG_Goal_8		0.734	***	0.538
UN_SDG_Goal_9	SDG	0.609	***	0.371
UN_SDG_Goal_10		0.725	***	0.526
UN_SDG_Goal_11		0.754	***	0.569
UN_SDG_Goal_12		0.668	***	0.446
UN_SDG_Goal_13		0.747	***	0.558
UN_SDG_Goal_14		0.684	***	0.467
UN_SDG_Goal_15		0.782	***	0.612
UN_SDG_Goal_16		0.686	***	0.470
UN_SDG_Goal_17		0.704	***	0.495

P-value = *** indicates a P-value < 0.001

Standardized coefficients shown in Table 4 are not only quite balanced but also all of them are above 0.46, in harmony with the stable importance given to each of the SDG, which was previously pointed out, according to the sample's information. Some differentiated information about the coefficients for males and females are shown in Table 5.

Table 5. Standardized Regression Weights for the construction “YUC on SDG” comparison between male and female.

		Estimate All	Estimate Male	Estimate Female
UN_SDGs_Goal_1		0.680***	0.689***	0.729***
UN_SDGs_Goal_2		0.690***	0.744***	0.682***
UN_SDGs_Goal_3	SDG	0.706***	0.719***	0.714***
UN_SDGs_Goal_4		0.751***	0.796***	0.737***

UN_SDGs_Goal_5	0.710***	0.780***	0.712***
UN_SDGs_Goal_6	0.739***	0.795***	0.674***
UN_SDGs_Goal_7	0.678***	0.695***	0.661***
UN_SDGs_Goal_8	0.734***	0.728***	0.776***
UN_SDGs_Goal_9	0.609***	0.581***	0.670***
UN_SDGs_Goal_10	0.725***	0.776***	0.672***
UN_SDGs_Goal_11	0.754***	0.761***	0.757***
UN_SDGs_Goal_12	0.668***	0.655***	0.731***
UN_SDGs_Goal_13	0.747***	0.825***	0.629***
UN_SDGs_Goal_14	0.684***	0.740***	0.591***
UN_SDGs_Goal_15	0.782***	0.806***	0.761***
UN_SDGs_Goal_16	0.686***	0.688***	0.750***
UN_SDGs_Goal_17	0.704***	0.768***	0.621***

P-value = *** indicates a P-value < 0.001

These results are complementary to previous studies like the one of Zamora-Polo et al., (2019), who evaluated the knowledge of university students about SDG; using a questionnaire, which was applied at the University of Extremadura (Spain), whilst our study evaluates the level of concerns. From another perspective, our work could be considered a forward step from the analysis of Dlouhá, J.; Pospíšilová, M. (2018).

The results of the joint analysis of the sample and of its segmentation for men and women, shown in the tables above, have in common that they show the commitment that the young people participating in the survey have shown for each and every one of the SDGs, which is an interesting result in itself and which, to the authors' knowledge, has not been empirically verified so far.

A gender-differentiated analysis helps to include substantial nuances that, as a first approximation, are very interesting and open the way to new lines of future research. These nuances suggest that, although the priority concerns for men and women are directed towards the same SDGs (15, 8, 11 and 4: G 15, Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss; G 8, Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all; G 11, Make cities and human settlements inclusive, safe, resilient and sustainable; G 4, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all), because all four of these objectives are among the priorities of both, according to Table 6. These results are concordant to Amanuma et al. (2023) findings that women and young people have different positions on the socio-economic SDGs and the environmental SDGs.

For women, among the six main concerns, four are mainly linked to the socio-economic area, with SDG 8 on decent work and sustainable economic development in first place, or SDG 16 on peace as the fourth in their order of priorities, while for men, the goal related to peace would be in 15th place among their priorities. Further details on the differences between men and women are summarised in Table 6.

Table 6. Main sustainable development goals as a ranking of concern for male and female survey respondents

Male	Female
G 15, Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	G 8, Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
G 11, Make cities and human settlements inclusive, safe, resilient and sustainable	G 15, Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
G 4, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	G 11, Make cities and human settlements inclusive, safe, resilient and sustainable
G 13, Take urgent action to combat climate change and its impacts	G 16, Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
G 6, Ensure availability and sustainable management of water and sanitation for all	G 4, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
G 8, Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	G 12, Ensure sustainable consumption and production patterns

In view of the results and their interpretation, the contributions of this work with respect to academic research have made it possible to advance in the direction proposed of filling the necessary space on the assessment of university students' commitment to sustainable development in a global sense, within the framework of the SDGs, since it has been proven that the results provided by the confirmatory factor analysis, shown in the Figures 1 and 2, and Tables 4, 5 and 6, provide much richer visions than those that can be appreciated simply with a descriptive statistical analysis, such as that reflected in the table 3.

These results are also valuable at a practical level for society, because they allow us to see beyond isolated interpretations of the concern for a specific issue, for example, the care of the seas, whose assessment as a whole provides a great deal of analytical richness and, therefore, can facilitate knowledge of the attitudes of the agents and thus help decision-making by companies, NGOs or other institutions.

In this same sense, the social value of the advances achieved with this research is reinforced if we consider that it can be useful for policymakers, educators and even for the students themselves, who in the future must enter the labour market.

In summary, the empirical work carried out here, based on primary data, represents a step forward for research, social, educational and economic implications, in the field of sustainability, as it focuses on a crucial aspect, which is the attitudes and commitment of people and, specifically, of a group of people who will have an important responsibility in this field, not only as young people, with a future ahead of them, but also as university students with the prospect of working in a global world, in which they will have to make both personal and professional decisions.

5. Conclusions

The main conclusion of this research is the significant level of students' commitment to sustainability. The evaluation of each of the SDGs yields high indices for all of them. Furthermore, the set of the 17 SDGs, the latent variable, as a measure of concern for global sustainable development, shows a very high consistency, indicating that YUC is quite balanced across the different goals. This means that future generations of policymakers (probably coming from this group of students) are highly committed to sustainable growth, so they are expected to push for new policies in favour of sustainability.

In addition to the commitment to the SDGs in general and to each of them in particular, this concern covers environmental as well as social and economic aspects. Although the main concerns are directed towards the protection of terrestrial ecosystems (G15), the humanization and sustainability of cities (G11), inclusive education and equal opportunities (G4) and action against climate change (G13), the concerns of men and women present different nuances (see Table 6), with women prioritizing the social aspect.

Regarding the results for Goal 8, with the information obtained and the analyses carried out in this work, the main explanation that can be given for this is that it is a very broad Goal, in which it is about "Promote, inclusive and sustainable economic growth, full and productive employment and decent work for all ", where there are very complex concepts such as " economic sustainability "or" sustainable growth", and it also includes aspects related to the labour market such as "full and productive employment "and" decent work ". In principle, it would be expected that this goal would be at the heart of youth concerns because, in a horizon of around four years, all university students will find themselves in the position of seeking employment. Given that juvenile employment is higher than general unemployment and the jobs are actually quite precarious, the valuation that has been given here is striking. However, given the nature of this work, whose approach is more global, these specific details are out of its aim and scope considered the object of another different work. The more detailed view, by introducing gender nuances, provides interesting explanations that help to understand the complexity of the analysis, the interpretation of the results and the necessary contextualisation of the results.

Following the analysis carried out on the basis of the primary data collected, new lines of analysis are proposed, related to the different sensitivities and their influence on the commitments to general sustainability and its different components.

This work is a first approach to the concerns of young people regarding sustainability from the perspective of the SDG, which gives it an interesting value for understanding the involvement of young people in general and young university students in particular. The opinions and concerns of university students are of the utmost importance to achieve sustainable university campuses, so advances in this field are not only valuable for knowing and assessing the situation, but also to design policies for action from educational institutions in general and particularly in higher education. Besides, given the scope of the issue at hand, its importance transcends the purely educational field, since everything concerning the university and its role as a driver of sustainable development is closely related to society in general.

The limitations of this research come mainly from the sample, which does not detract value from it, as a first approximation to a subject of great importance that requires broader studies as regards its scope geographic and youth population analysed. As a suggestion for future research, a more detailed and specific focus on particular aspects of the SDG should be undertaken, particularly for studies dedicated specifically to each of the specific goals.

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