

THE PERCEPTION OF THE SDGS IN UNIVERSITY STUDENTS: OVERVIEW AND SURVEY DESIGN

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Abstract

Sustainable Development Goals (SDGs) define objectives to be achieved by the year 2030. Therefore, there are less than eight years left to fulfil the purposes indicated in them, and unfortunately, everything indicate that this will not be the case, and the established objectives will not be achieved on time.

Situations such as those seen daily in the global environment in terms of poverty, inequality, even in relation to unthinkable wars, such as the one between Russia and Ukraine, make the SDGs more important every day, and humanity should have them as benchmark for the development of a global society. However, the situation is quite the opposite, and although there are initiatives and a certain degree of knowledge of these SDGs, society is far from the necessary awareness and perception of their importance to achieve them.

Given this lack of awareness and perception of the SDGs as something essential for the development and survival of human beings on the planet, it is essential to train young people about it. And, above all, to those who are destined to manage and direct the world in the future. They need to perceive the importance of these SDGs, something that goes far beyond seeing the SDGs as a political weapon with which to try to win votes as it seems that many of the young people perceive this UN initiative

To carry out all this, it is essential to know what university students, who will be the leaders of the future, think about it, and how they perceive the SDGs. For this reason, a survey has been designed to obtain this information. This article focuses on presenting that survey and its design. This survey differs from others related to the SDGs, which focus more on finding out what students know about the SDGs. However, this survey focuses more on knowing how the SDGs are perceived, and if students believe that their future work can influence achieving any of them.

Depending on the results that can be obtained through this survey, it will be possible to know how to approach the training of students in SDGs, so that they can exploit their knowledge, at a "technical" level, always in line with the achievement of the SDGs.

Keywords: Sustainable Development Goals, SDGs, perception, awareness, Survey.

1 INTRODUCTION

The Sustainable Development Goals (SDGs) are a universal call to action to end poverty, protect the planet and improve the lives and prospects of people around the world. In 2015, all United Nations Member States approved 17 Goals as part of the 2030 Agenda for Sustainable Development, an initiative that establishes a plan to achieve the established Goals within a period of 15 years.

The 17 SDGs focus on achieving sustainable development, which can be defined as "development capable of meeting the needs of the present without compromising the ability of future generations to meet their own needs" [1]. This sustainable development requires focused efforts to build an inclusive, sustainable and resilient future for people and the planet. According to the UN's own proposal [1] to achieve sustainable development, it is essential to harmonize three basic elements, which are the following: economic growth, social inclusion and environmental protection. The three elements are interrelated and all are essential to achieve the well-being of people and societies.

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Situations such as those seen daily in the global environment in terms of poverty, inequality, even in relation to unthinkable wars, such as the one waged by Russia and Ukraine, make the SDGs more important every day, and humanity should have them as benchmark for the development of a global

society. However, the situation is quite the opposite, and although there are initiatives and a certain degree of knowledge of these SDGs, society is far from the necessary awareness and perception of their importance to achieve them.

Specifically, University students are not aware of the Sustainable Development Goals. They say that the information they have received through various means, including university teaching and social networks, is very scarce [2;3]. In addition, in the achievement of the SDGs, they value the professional implications less than the personal ones [2].

Because of the existing situation in the university environment, an Educational Innovation and Improvement Project (PIME) is being developed. The name of the Project is DIASDGES "Design and implementation of teaching-learning activities aimed at training in SDGs in an integrated manner with engineering study subjects" (Ref.: /PIME/21-22/252). The main purpose of this project is to investigate the degree of knowledge about the SDGs that university students have, as well as the awareness they have towards them, with the final objective of propose adequate training strategies and activities that can integrate the SDGs into university education [4]. In this research project, an action protocol has been designed [5]. The protocol is reasoned and justified based on the existing research and the objectives of the research, and will serve as a guide to carry out the intervention through which the necessary data will be collected. In this way, the specific objective of the research can be achieved, which is to find out what is really the perception that engineering studies students have regarding the importance of the SDGs in their future work. In this way, depending on the result obtained, a specific learning strategy could be proposed in the future for the SDGs, within the Engineering degrees, in a way adapted to this perception.

One of the first steps of the protocol to carry out the educational research intervention is to design a questionnaire suitable for the objectives of the work. Based on previous works, the questionnaire will initially be based on the one proposed in [3] complemented with questions from the work of Aleixo et al [6]. However, given the increase in published works related to the SDGs in recent times, a new literature review has been carried out to update the state of the art.

Therefore, the main objective of the work presented in this paper is to design and propose a survey to find out the perception that university students have regarding the SDGs. Depending on the results that can be obtained through this survey, it will be possible to know how to approach the training of students in terms of the SDGs, so that they can exploit their knowledge, at a "technical" level, always in line with the achievement of the SDGs.

2 METHODOLOGY

To develop the survey, firstly, works that propose similar surveys have been sought. To carry out this search, the Web of Science database was basically used, searching for different combinations of terms such as "Sustainable Development Goals", "SDG", "Survey", "Questionnaire", "Perception", "University students", or "Awareness". Some works have been found that use surveys regarding the SDGs in different university environments [2,3,4,6,7,8,9,10]. But for the most part they are focused on knowing the degree of knowledge of the SDGs [2,7,10], and their degree of implementation, attitudes or actions adopted by Universities [8,9].

Therefore, these surveys and their main objective are different from the approach that we try to give in this work, in which we try to find out mainly what is the perception that students have regarding the SDGs, and to a lesser extent, also what is the degree of awareness they have about them.

However, there is a recent work in the line of the research presented in this paper. It is specifically the article by Aleixo et al [15]. This study is developed through a survey of more than 1.000 university students in Portugal. However, as can be seen in the questions that are posed, it focuses on the perception of the training they have received regarding the SDGs, and not so much on how they perceive them, the SDG's and their impact. In its conclusions, the study indicate that almost all students agree that Higher Education Institutions should actively incorporate and promote Sustainable Development in their training offer. However, currently only about 25% of students feel that Sustainable Development topic is covered in their course, and 21% report that it is not covered at all in the course they attend. The vast majority of students (94%) feel that Higher Education Institutions could do more to train students with skills in relation to the SDGs. When asked about the SDGs, half of the students claim to know what they are, but 34% have heard of them, but do not know what they are, and 16% have never heard of them. This shows that, although Higher Education Institutions are already developing Sustainable Development skills, they still have a role to play in training students in the area of the SDGs.

However, even this study, which seems closely related to the research presented here, the survey presented is not appropriated to analyse how students perceive the SDGs, and what importance they believe they have in their work and personal future. It goes into details of its behaviour taking into account recycling, or concern for environmental climate change, but this is not the main objective of our research, and therefore, the survey does not fit to our purpose.

Once again, it is confirmed that there are no studies or surveys in relation to the specific research presented here. There are studies that investigate what students know about the SDGs, but not so much to know how they perceive them.

3 RESULTS

As a result, after reviewing these and other existing works, and the questions they pose in their questionnaires, a survey has been designed and developed, in which some of the questions from these studies are used, and others have been added.

Finally, a survey has been proposed with a total of 40 questions, divided into 5 blocks, which are shown below:

- BLOCK 1: Sociological identification. 5 Questions in order to know the respondent's profile.
- BLOCK 2: Degree of general knowledge. 1 Subjective question, where the respondents respond regarding their perception of their own knowledge about the SDGs.
- BLOCK 3: Awareness. 7 Questions designed to know the level of awareness of the respondent regarding the SDGs.
- BLOCK 4: Real knowledge of the SDGs. In this block, 10 very basic questions about SDG's are asked, in which there is a correct answer. It serves to assess the "real" knowledge that students have regarding the SDGs, in order to analyse the level of knowledge with the level of awareness. This block is based on [7]
- BLOCK 5: Relationship between the profession and each of the SDGs. In this block, 17 questions are presented to know to what extent students believe that their future profession (for which they are studying) can contribute to the achievement of each of the SDGs

The survey has been tested and validated with several groups of students. In order to have representation of different student profiles, it has been done inside different degrees and entities of the Polytechnic University of Valencia. Obviously, these entities are the ones that participate in the Educational Research and Improvement Project in which this work is framed.

The next table (Table 1) shows the Degrees and Entities participation in the DIASDGES project.

Table 1: Degrees and entities participating in the project DIASDGES.

<i>Degree</i>	<i>Entity (School)</i>
Bachelor's Degree in Industrial Engineering	School of Industrial Engineering
Bachelor's Degree in Informatics Engineering	Higher Polytechnic School of Alcoi
Master's Degree in Telecommunication Engineering	School of Telecommunications Engineering
Bachelor's Degree in Digital and Multimedia Technology	School of Telecommunications Engineering
Bachelor's Double Degree in Mathematics + Telecommunication Technologies and Services Engineering	School of Telecommunications Engineering
Bachelor's Degree in Industrial Organization Engineering	School of Industrial Engineering

Source: self made

To do the testing and validation, the survey was configured in a Google Forms and passed to the different groups of students during the classes. The passing of the surveys was carried out in the first days of the course, at the beginning of the respective subjects related to the research of the DISDGES Project.

The students gave their feedback and the pertinent corrections and modifications were made in order to adjust the questionnaire to the requirements of the final user (the student). Finally, the definitive survey

was obtained, which will be transferred massively to all the groups of students that are included in the educational research and improvement project.

4 CONCLUSIONS

The Sustainable Development Goals define all the priorities that exist at the global level with regard to sustainable development. Aspirations for the year 2030 are established and it seeks to mobilize all efforts at a global level around a set of common objectives and goals. The Sustainable Development Goals establish a wake-up call to governments, organizations and society, with the aim of ending poverty and establishing a dignified life and opportunities for all, within the limits of the planet

The SDG are a guide, a map that will allow companies to identify whether their social, economic and environmental impact adds value to society, and consequently strengthen their reputation and their relationships with the different interest groups. Unlike the millennium development goals, their predecessors, the Sustainable Development Goals make a much more explicit call to all organizations to apply their creativity and innovation with which to solve all the challenges that arise in sustainable development. The Sustainable Development Goals have been agreed by all governments, however, the success of their achievement will depend on the actions carried out by everyone, both companies, the government, and society in general.

Nevertheless, according to recent studies carried out in different countries and environments, the real situation is that university students do not give these SGDs the importance that it seems they should have. Moreover, without the drive and involvement of those who will be the leaders of the future, it is very complex, or rather impossible, for the established objectives to be achieved.

For this reason, it is essential to raise awareness among university students and train them so that they can carry out their activity in line with the SDGs, something that does not happen, far from it, currently.

In order to do so, and improve their awareness and perception of the importance of the SDGs for the future of the planet, it is clear that the first step must be to know the initial situation. In this way, based on this, it will be possible to establish action plans that can improve this situation.

For this reason, a group of professors from the Polytechnic University of Valencia are developing an Educational Research and Improvement Project called "Design and implementation of teaching-learning activities aimed at training in SDGs in an integrated manner with engineering study subjects" (Ref.: /PIME/21-22/252). Within this project, and as the first step of the action protocol, a survey is defined that will serve to know the perception and awareness that university students have regarding the SDGs. This survey has been defined based on different questionnaires and related studies that have been found in the scientific literature, and has been tested and validated with a group of students.

The proposed survey will be used in the development of the PIME, to achieve its objectives, but it can also be used in any study that seeks or needs to know how the SDGs are perceived by a group or collective.

After defining and validating this survey, it will be passed on massively to the students of the subjects included in the study, with which the data can be analyzed and the necessary information obtained to propose and develop actions to improve perception and awareness of the SDGs, appropriate to the real situation of the students surveyed.

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