



How Implementing SDG 12 in Teaching Helps Students Develop Prosocial Skills?

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Abstract. The world is witnessing various substantial risks and how ecological and climate changes can affect our daily lives, such as ecological and climate ones. The United Nations has established the SDG17 goals for sustainable development till the year 2030. Governments and organizations were assigned to engage people and individuals in societies to contribute in the maintenance of sustainability. Higher education institutions took part as they are the vital agents for change and enhancing students' prosocial behaviours, by adapting policies and curriculums that the core subject is sustainable development and responsible production and consumption. This study is a systematic review to analyze how universities' implementation of SDG12 helps students develop prosocial behaviours. Findings demonstrated that students' approach to positive environmental actions is due to the activities, campaign and educational models offered by universities. Also, it shows that joining forces with universities can contribute in achieving more goals on a larger scale.

Keywords: Sustainable development · Responsible production and consumption · Higher education institutions

1 Introduction

Since 2015 the United Nations established the Agenda 2030 with seventeen (17) sustainable development goals (SDG) to be attained by the year 2030 to solve social, economic, and environmental challenges [1]. They are integrated and indivisible and balance the three dimensions of sustainable development: the economic, social, and environmental [2]. SDG12's goal in particular is to ensure responsible consumption and production by all people with the contribution of organizations, and education institutions. It is essential to direct all activities towards sustainability and responsible consumption and production.

Higher education institutions are fundamental in the promotion of SDG12 by integrating it into policies and curriculum. Therefore, higher education institutions have the responsibility to address global changes and problems with the aspiration of finding solutions by developing new tools to shift students towards actions of sustainability and responsible production and consumption [3].

The achieving of the SDG goals contribute with the enhancement of students' prosocial behaviours and soft skills such as collaboration, communication, emotional intelligence, social skills, and. interculturality. Soft skills help students excel in their professional career, as well as, it helps them gain awareness of their surroundings and become more approachable to engaging in social, economic, and environmental activities [4]. In this sense these skills improve prosocial behaviours as individuals and in societies.

Prosocial behavior represents voluntary behavior intended to benefit either another individual or society as a whole [5, 6] by engaging in helping, volunteering, donating, and cooperating. These behaviours can be reinforced through the emphasis on soft skills [6] through encouraging students in volunteering activities, organizing awareness days and campaigns, cultural exchanges, and context stimuli. All these actions are conducted to prepare students for the demands of society while highlighting the need of making positive decisions regarding sustainability and responsible consumption and production that are beneficial for the individual and the society.

In this paper, we will review studies that focus on the development of students' prosocial behaviours through the achievement of SDG12 in higher education. This is to demonstrate that the success of one SDG goal is the achievement of all goals, and that change starts from education. The more we implement concepts, courses and opportunities for students to thrive as individuals, the more we are producing effective citizens that contribute to the success of society in all its social, economic, and environmental aspects. However, how do higher education institutions contribute achieve the development of students prosocial behaviours?

2 Method

For this paper, we followed the steps of a systematic literature review. We have analyzed 11 articles (Table 1) in relation to the implementation of sustainability and the responsible consumption and production (SDG12) in teaching, and the prosocial behaviours. Time frame was set from 2019 to 2022. Articles were selected through ScienceDirect, and Google scholar. Criterias of selection were:

1. Articles related to SDG12 goals.
2. Include studies on how education contributed to the development of students' prosocial behaviours and skills.
3. Studies conducted in Europe.

Crieterias of exclusion were:

1. literature review, systematic review, and meta-analysis of articles.
2. Not related to higher education.
3. Studies conducted outside Europe.
4. Not related to prosocial behaviours, SDG, and soft skills (Fig. 1).

Table 1 Articles selected

No	Title	Authors	Year	Journal
1	Competences to address sdgs in higher education—a reflection on the equilibrium between systemic and personal approaches to achieve transformative action	Dlouhá, Heras, Mulà, Salgado, & Henderson	2021	Sustainability
2	Transformative policies for the social and Solidarity Economy: The new generation of public policies fostering the social economy in order to achieve Sustainable Development Goals. the European and Spanish cases. Classroom: Perspectives from Teachers and Learners	Chaves-Avila, R., & Gallego-Bono, J. R	[7]	Sustainability
3	The path toward a Sustainable Green University: The case of the University of Florence	Fissi, S., Romolini, A., Gori, E., & Contri, M.	[3]	<i>Journal of Cleaner Production</i>
4	Social Marketing and higher education: Partnering to achieve sustainable development goals	Hübscher, C., Hensel-Börner, S., & Henseler, J	2021	<i>Journal of Social Marketing</i>
5	Promoting sustainable consumption in higher education institutions through integrative co-creative processes involving relevant stakeholders	Longoria, L. C., López-Forniés, I., Sáenz, D. C., & Sierra-Pérez, J	2021	<i>Sustainable Production and Consumption</i>
6	Eureca-Pro: The European University on Responsible Consumption and production	Pichler, L., Egger, J., Feiel, S., Kircher, V., & Kosciuszko, A	2021	<i>BHM Berg- Und Hüttenmännische Monatshefte</i>
7	Higher Education for Sustainability: A Global Perspective	Žalėnienė, I., & Pereira, P.	[8]	<i>Geography and Sustainability,</i>

(continued)

Table 1 (continued)

No	Title	Authors	Year	Journal
8	Raising awareness of the Sustainable Development Goals through ecological projects in Higher Education	Manolis, E. N., & Manoli, E. N.	[9]	<i>Journal of Cleaner Production</i>
9	A holistic approach to integrate and evaluate sustainable development in higher education. The case study of the university of the basque country	Sáez de Cámara, E., Fernández, I., & Castillo-Eguskitza, N	[10]	Sustainability
10	Outcome indicator development: Defining education for sustainable development outcomes for the individual level and connecting them to the sdgs	Günther, J., Overbeck, A. K., Muster, S., Tempel, B. J., Schaal, S., Schaal, S., Kühner, E., & Otto, S	2022	<i>Global Environmental Change,</i>
11	Soft skills and STEM education: Vision of the European University Eureka-Pro	Villán-Vallejo, A., Zitouni, A., García-Llamas, P., Fernández-Raga, M., Suárez-Corona, A., & Baelo, R	[11]	<i>BHM Berg- Und Hüttenmännische Monatshefte</i>

3 Results

All articles highlighted the importance of implementing all SDG and SDG12 goals in higher education. Universities are agents of change and innovation to help students make more positive and responsible environmental decisions, and in order to achieve any SDG goals, sustainability needs to be the core objective of universities' curriculums and classrooms [12].

Various models and initiatives to implement SDG by higher education institutions. For example, the study of [8] employed a co-creation model to sustainability to engage all members of university with a multidisciplinary approach, aiming at solving global needs to facilitate the transition of consumers towards responsible consumption, showed that it allows stakeholders to understand its community by actively participate in generating more democratic solutions and social involvement for sustainability concerns.

Integrating the use of digital devices and linking institutions with social marketing is an effective way to engage students since social media platforms are part of their daily lives. An example of students' participation in campaign and environmental activities through the social marketing campaigns is the study of [13] conducted on part-time master students of a private business school in Germany set social marketing guidelines to encourage students to consume less, and buy sustainable products to contribute to social change.

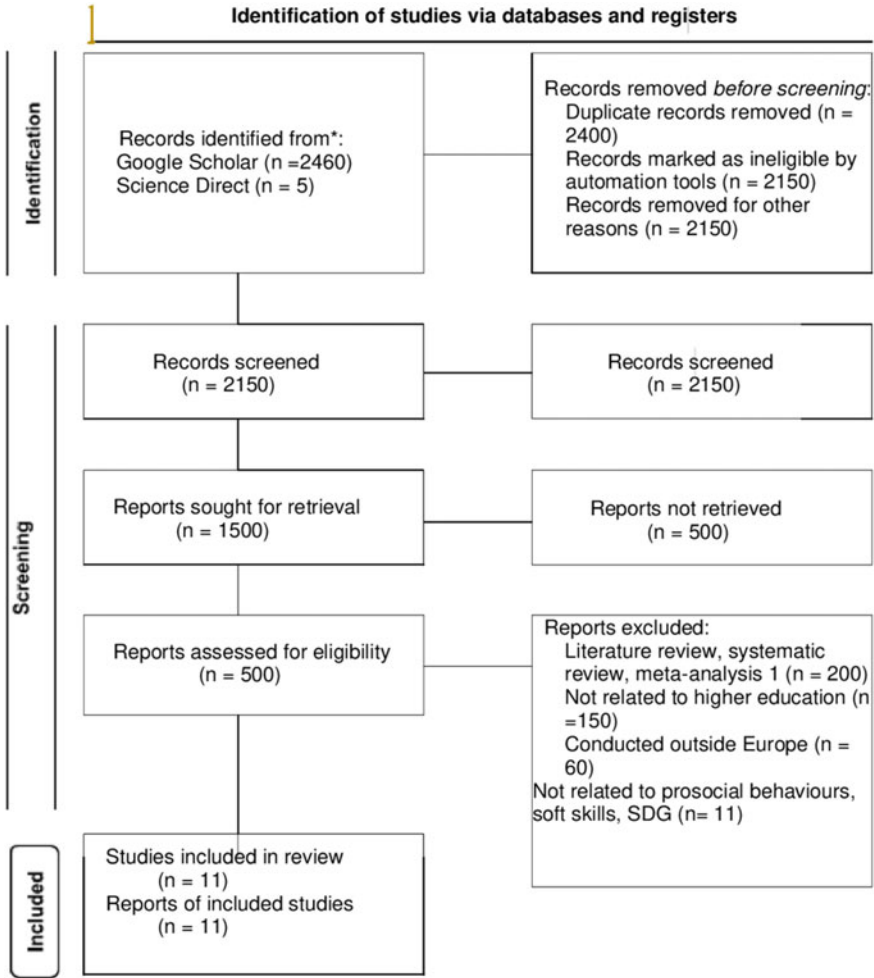


Fig. 1 PRISMA Flowchart

Different view of how implementing SDG in European universities helps the development of students’ prosocial behaviours is joining forces to achieve more results on larger scales. The European university on responsible consumption and production (EURECA-PRO) is an alliance of eight European universities from Spain, Germany, Austria, Romania, Greece, Poland, and Belgium. joined together to become an universal and global educational institution promoting social, economic, and environmental solutions all while engaging students through the creation of a joint European degree in all levels (Undergraduate, master, and PhD) and enhancing research and innovation, through the maintenance of promoting sustainable development and responsible production and consumption [13].

Raising awareness regarding the impact of SDG in society and how to maintain it is another approach adopted by universities. The ecological project [14] of the university of Western Macedonia in Greece where students themselves were included in rising awareness regarding SDG by giving theoretical classes and organizing campaigns.

Adapting social and emotional learning classrooms is another effective concept to enhance the soft skills which eventually will contribute in the development of the prosocial skills. The EURCA-PRO has and still is offering exchange programs (Erasmus programs), research forums, conferences, summer schools, and training courses (the Project based learning (PBL), and cooperative learning) in which sustainability and responsible consumption and production is the core objective. It helps the reinforcement of students' soft skills (Interpersonal communication, listening, time management, decision making, interculturality, public speaking and empathy). As a result, these acquired skills contribute to the excellence of students in their professional career and adaptation of sustainable and responsible environmental actions [9].

4 Discussion

According to the articles and the review being conducted, it's clear that all SDGs are a priority to higher education institutions, and achieving each goal can only be done through the promotion of sustainability. European universities are establishing models and conducting studies that show impact and how students are more engaged in maintaining sustainability.

Also, universities all over the world, and in Europe in particular are working together to attain the goals by 2030, because by joining forces greater things can be achieved, and EURECA_PRO is a living example that did and still is working towards that goal by establishing degrees, events, projects, and campaigns to engage students into society and start making positive environmental actions.

Fostering soft skills in higher education institutions can contribute in preparing students to engage in workplaces and society, by establishing the skills of communication, intercultural teamwork, collaboration, and socio-emotional skills. Students are able to engage as professionals in their workplaces and approach prosocial behaviours in their societies.

5 Conclusion

United Nations' sustainable development goals are intended to solve social, economic, and environmental challenges and obstacles that are facing both the individual and the society. Not only governments and organizations can be engaged in including and integrating people to act accordingly and establish a healthy, positive lifestyle that can save the environment and maintain sustainability. Higher education institutions are the main and vital agents to make change that can start from classrooms and be executed in societies by equipping students with the appropriate soft skills that can contribute in adapting prosocial behaviours.

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