world MDPI

Article

Training Future Managers to Address the Challenges of Sustainable Development: An Innovative, Interdisciplinary, and Multiregional Experience on Corporate Sustainability Education

Rosley Anholon [1], Tiago F. A. C. Sigahi [2,*], Gustavo Tietz Cazeri [3], Patricia Fernanda da Silva Siltori [1], Wagner Luiz Lourenzani [4], Eduardo Guilherme Satolo [4], Adriana Cristina Ferreira Caldana [5], Gustavo Hermínio Salati Marcondes de Moraes [6,7], Vitor William Batista Martins [8] and Izabela Simon Rampasso [9]

[1] School of Mechanical Engineering, State University of Campinas, Campinas 13083-860, Brazil; rosley@unicamp.br (R.A.); 227015@dac.unicamp.br (P.F.d.S.S.)
[2] Department of Production Engineering, Federal University of São Carlos, Sorocaba 18052-780, Brazil
[3] School of Engineering, Mackenzie Presbyterian University, São Paulo 01302-907, Brazil; gustavo.cazeri@gmail.com
[4] Faculty of Science and Engineering, São Paulo State University, Tupã 17602-496, Brazil; w.lourenzani@unesp.br (W.L.L.); eduardo.satolo@unesp.br (E.G.S.)
[5] Faculty of Economics, Administration and Accounting, University of São Paulo, Ribeirão Preto 14040-900, Brazil; caldana@usp.br
[6] School of Applied Sciences, State University of Campinas, Limeira 13484-350, Brazil; salati@unicamp.br
[7] School of Management Sciences, North-West University, Vanderbijlpark 2531, South Africa
[8] Department of Production Engineering, State University of Pará, Belém 66050-540, Brazil; vitor.martins@uepa.br
[9] Departamento de Ingeniería Industrial, Universidad Católica Del Norte, Antofagasta 1270709, Chile; izabela.rampasso@ucn.cl
* Correspondence: sigahi@unicamp.br

Abstract: This paper presents an innovative experience involving students and professors from diverse backgrounds and regions that was designed to integrate corporate sustainability (CS) knowledge into undergraduate programs. An action research approach was adopted, with the course running over one semester. The course involved 146 students with diverse academic backgrounds from universities across Brazil along with eight professors from Brazil, Chile, and South Africa. The proposed approach provides actionable insights into the integration of sustainability concepts in the higher educational setting, thereby contributing to the development of a more environmentally and socially conscious generation of professionals. The learning outcomes are discussed in the light of the Sustainable Development Goal (SDG) Agenda, particularly SDG 7 (affordable and clean energy), SDG 9 (industry, innovation, and infrastructure), and SDG 13 (climate action). In addition, it is important to highlight that the dissemination of the course's key features can be useful for universities, professors, and researchers engaged in training future professionals capable of addressing real-world problems of innovation and sustainability. By employing an action research methodology and fostering collaboration among students and professors with diverse academic backgrounds and from different countries, including Brazil, Chile, and South Africa, this paper presents a multiregional and interdisciplinary perspective that sets it apart from conventional practices. The emphasis on providing actionable insights and its potential applicability for universities, professors, and researchers involved in training future professionals further underscore its distinctive contribution to education for sustainable development.

Keywords: corporate sustainability; corporate social responsibility; management education; training for managers

1. Introduction

The 1990s witnessed the rise of environmental education, which addresses the adverse effects of economic development and resource depletion. This era laid the foundation for the emergence of education for sustainable development (ESD), a pivotal force in fostering the knowledge and attitudes required to build sustainable societies worldwide [1]. UNESCO [2] defines ESD as the integration of critical sustainable development concerns into participatory teaching and learning, promoting the development of abilities related to critical thinking, scenario planning, and teamwork.

To effectively promote and disseminate the concepts of ESD, higher education plays a crucial role in equipping the next generation of leaders with the necessary knowledge and skills to address sustainability challenges [3–5]. These challenges include social, environmental, and economic sustainability challenges. Social sustainability focuses on promoting social equity, justice, and well-being for present and future generations, which involves ensuring fair access to resources, opportunities, and basic human rights as well as fostering inclusive communities and cultures [6]. Environmental sustainability concerns the responsible management and preservation of natural resources and ecosystems in order to maintain their integrity and health for current and future generations and includes practices such as reducing pollution, conserving biodiversity, and mitigating climate change [7]. Economic sustainability involves creating economic systems and practices that are viable over the long term, without depleting resources or causing significant harm to people or the environment, and includes promoting sustainable production and consumption patterns and fostering innovation and economic growth while considering social and environmental impacts [8].

The incorporation of ESD principles into higher education curricula, with a focus on integrative and interdisciplinary subjects, serves as a vital means of preparing students to embrace sustainable attitudes and practices in their future professional endeavors [9,10]. Higher education institutions (HEIs) have a dual role in preparing both educators and students to actively engage with sustainability, ensuring a comprehensive and impactful approach to ESD. On the one hand, it is the responsibility of HEIs to equip primary and secondary school educators with the knowledge, skills, and attitudes required to effectively teach sustainability concepts [11]. On the other hand, graduating students must possess a range of critical competencies that are essential for promoting sustainable actions, encompassing systems, anticipatory, normative, and strategic thinking, interpersonal skills, and implementation abilities [12].

It is worth highlighting the intrinsic connection between ESD and the 17 Sustainable Development Goals (SDGs) established by the United Nations [13]. ESD plays a pivotal role in the 2030 Sustainable Development Agenda as a fundamental catalyst for sustainable development and a key component of quality education. Particularly, SDG 4 emphasizes the importance of providing inclusive and equitable education in order to foster lifelong learning opportunities for all individuals [14]. This goal underscores the significance of equipping every student with the knowledge and competencies necessary to advance sustainable development [15]. This highlights the importance of sharing with the academic community real-life experiences that aim to prepare professionals for sustainability, which resonates with the core focus of this study. Specifically, this paper outlines the primary features and learning outcomes identified in a course designed to integrate corporate sustainability (CS) into undergraduate programs, as delivered by a consortium of professors to students representing diverse universities and regions.

The State University of Campinas (Unicamp) coordinated an online course that brought together 146 students from diverse academic backgrounds studying at universities located throughout Brazil. Additionally, the course involved eight professors from universities in Brazil, Chile, and South Africa. Teaching CS concepts to future professionals is of paramount importance as it equips them with the knowledge and skills needed to contribute to sustainable development [12]. In today's world, businesses play a significant role in shaping social, economic, and environmental outcomes, which makes it crucial

for future professionals to understand the principles of corporate sustainability and how they can be applied within organizations [16]. By integrating corporate sustainability into educational curricula, it is possible to instill a way of thinking that is capable of taking the long-term well-being of both the business and society as a whole into account [17]. Students who grasp the concepts of corporate sustainability gain a comprehensive understanding of the interconnections between economic growth, social progress, and environmental stewardship [15].

In addition to this introductory section, this paper has four more sections. Section 2 presents the theoretical background, exploring concepts related to ESD and CS. It also discusses cases related to the teaching of corporate sustainability. Section 3 explains the methodological procedures used to conduct this study. Section 4 presents the main results and a discussion centering on the key characteristics and learning outcomes of the integrative CS course and how it can contribute to training professionals capable of contributing to the achievement of SDGs. The findings are also discussed in relation to other CS courses reported in the literature. Lastly, Section 5 presents our final considerations and conclusions, outlining the limitations of this study and the implications for future educational practices and research in the field of corporate sustainability and its integration into undergraduate programs.

2. Theoretical Background

2.1. Training Managers for Sustainable Development

As pointed out by Lozano et al. [18], the concept of ESD is highly complex, with a widely accepted definition being provided in the report *United Nations Decade of Education for Sustainable Development* [19], which states that ESD encompasses a process of acquiring knowledge or an instructional and educational methodology grounded in the values and concepts that support sustainability, and it pertains to education at various levels and across diverse forms. ESD can be conceptualized more broadly as an approach that seeks to instill sustainability-related values, knowledge, and skills in all aspects of the educational process [15].

ESD approaches aim to engage learners and help them see the relevance of sustainability in their daily lives, encompassing a wide range of subjects, including environmental science, social and economic justice, cultural diversity, and global citizenship [1]. The ultimate goal of ESD is to develop informed and responsible citizens by empowering students to become the change agents required to assist society in addressing sustainability challenges [18].

ESD prioritizes transdisciplinary learning, recognizing that sustainability challenges cannot be addressed by single courses [15]. Transdisciplinarity is an approach to problem-solving and decision-making that recognizes the interconnected and complex nature of sustainability challenges and the need for integrated solutions [20]. Thus, transdisciplinary approaches involve collaboration and the integration of knowledge and expertise from multiple courses, including natural and social sciences, engineering, arts, and humanities, and local communities [21].

Transdisciplinary approaches to sustainability also prioritize stakeholder engagement [22] and the co-creation of knowledge [23], recognizing that local communities, policymakers, and other stakeholders have valuable perspectives and knowledge to contribute to sustainable development. ESD approaches, when transdisciplinarity is taken into account, can lead to more inclusive and equitable decision-making as well as solutions that are more relevant to and effective in addressing the needs and priorities of different actors in society [15].

Research aimed at identifying the knowledge, competencies, and skills that should be developed by ESD has grown extensively [24], including studies with general approaches and a specific focus, such as pedagogy, management, or engineering (Table 1).

Table 1. Knowledge, competencies, and skills related to ESD.

Focus	Knowledge, Competencies, and Skills	References
General	- Complex thinking - Reflexivity - Prospective and creative thinking - Motivational and metacognitive competencies - Relational competencies - Self-knowledge	[25]
Pedagogy	- Systems thinking - Interdisciplinary work - Anticipatory thinking - Justice, responsibility, and ethics - Critical thinking and analysis - Interpersonal relations and collaboration - Empathy and change of perspective - Communication and use of media - Strategic action - Personal involvement - Assessment and evaluation - Tolerance for ambiguity and uncertainty	[26]
Management	- Responsibility - Emotional intelligence - System orientation - Future orientation - Personal involvement - Action skills	[27]
Engineering	- Systemic thinking - Ability to solve problems (integrated resolution) - Ability to work in an interdisciplinary group (collaboration) - Critical thinking - Normative competence - Self-knowledge competence - Strategic competence - Contextualization and future vision (anticipatory)	[28]

Source: Authors' own creation.

While all these fundamental competencies need to be developed for an effective implementation of ESD, several barriers have been documented in the literature. These barriers highlight the need for a more systemic approach to ESD that involves the development of effective teacher training programs, the integration of sustainability into the curriculum, and greater investment in resources and support. Additionally, there is a need for greater stakeholder engagement, including the involvement of local communities, businesses, and policymakers, in order to ensure that ESD initiatives are relevant, impactful, and scalable [22].

2.2. Corporate Sustainability: Concepts and Initiatives around the World

Over time, numerous authors have discussed the concept of corporate sustainability. Montiel and Delgado-Ceballos [29] found that definitions in practice-oriented journals often adopt a prescriptive approach, offering specific instructions to managers regarding the pursuit of corporate sustainability, whereas definitions found in the academic-focused literature were characterized as being more comprehensive, intricate, and rooted in philosophical perspectives. In fact, the literature has been convergent in defending the argument of van Marrewijk [30] that the "one solution fits all" definition for corporate sustainability should be abandoned, accepting various and more specific definitions matching the development, awareness, and ambition levels of organizations.

In light of this conceptual evolution, the recent literature on corporate sustainability frequently refers to Neubaum and Zahra's definition [31], which is the capacity of an organization to foster and facilitate expansion over a duration by fulfilling the desires and demands of a wide range of stakeholders. Thus, corporate sustainability encompasses the maintenance and enhancement of economic growth, shareholder value, reputation, prestige, customer connections, and product/service quality. It also involves embracing and actively pursuing ethical business approaches, generating sustainable employment, and addressing the requirements of marginalized communities [29].

The literature presents several benefits of and challenges to corporate sustainability and the importance of understanding how it contributes to the SDGs. A key topic is sustainability reporting, as organizations are increasingly being expected to report on their sustainability performance and provide transparency about their practices and externalities [32]. Stakeholder engagement, which includes customers, employees, communities, and investors, is also a key aspect of corporate sustainability practices toward the SDGs [33]. Finally, corporate sustainability and stakeholder management are connected to sustainable supply chains due to the increasing need for organizations to consider the environmental and social impacts of their suppliers and to work with them to promote sustainability and reduce risks [22].

Given the importance of corporate sustainability to the economic, environmental, and social development of business and society as a whole, universities and professors have increasingly sought to include related topics in courses in different areas of knowledge (Table 2).

Table 2. Initiatives related to the teaching of corporate sustainability topics.

Type	Topics	Fields	Country	References
Discipline/Course	Content of CSR	Business/Management	Canada and Mexico	Gonzalez et al. [34]
Discipline/Course	Cultural differences related to CSR	Public relations, Marketing, Communication, and Business	USA and Turkey	Peterka-Benton and Benton [35]
Discipline/Course	Sustainable supply chain management	Industrial and Systems Engineering	Mexico	Salinas-Navarro et al. [36]
In-class exercise	Corporate sustainability and CSR	Accounting	USA	Kraten and Stuebs [37]
Massive open online course (MOOC)	Corporate sustainability	Fashion industry	Denmark	Pedersen et al. [38]
Program (MBA)	Sustainable management	International Business	Germany	Kolb et al. [39]
Seminar	Relationship between CSR and engineering work	Petroleum engineering	USA	McClelland et al. [40]
Series of courses	Social construction of CSR meanings	Business and Tourism	Finland	García-Rosell [41]
Series of courses	Corporate sustainability and CSR	Design, Engineering, and Business	France	Schulz et al. [42]
Teaching activities and pedagogical approaches	Sustainable consumption, lifestyle, and CSR management	Business, Economics, and Finance	Spain	Alonso-Martínez et al. [43]
Teaching activities and pedagogical approaches	Environmental, Social, and Governance (ESG)	Accounting	Canada	Sheehan et al. [44]

Source: Authors' own creation.

Various initiatives around the world are dedicated to integrating corporate sustainability topics into different academic disciplines, fostering a comprehensive understanding of sustainability issues and their implications. These initiatives play a crucial role in preparing students to address the challenges of sustainable development across diverse fields. For example, in business and management, CS-related courses in Canada and Mexico focus on CSR principles and practices [34], whereas in the USA and Turkey they emphasize cultural differences related to CSR in public relations, marketing, communication, and business [35]. In the USA, accounting courses explored corporate sustainability and CSR through in-class exercises [37], while a seminar examined the CSR–engineering relationship in petroleum engineering [40]. In Canada, accounting programs incorporated environmental, social, and governance (ESG) topics [44].

In Mexico, a course incorporated sustainable supply chain management into industrial and systems engineering [36]. In Finland, a series of courses explored the social construction of CSR meanings in business and tourism [41]. Other countries in Europe have presented diverse initiatives, including France, which integrated corporate sustainability and CSR into design, engineering, and business [42], Spain, which connected business, economics, and finance with sustainable consumption and CSR management [43], Denmark, which offered an MOOC on corporate sustainability in the fashion industry [38], and Germany, which offered an MBA program integrating sustainable management into international business [39].

These initiatives collectively demonstrate the growing recognition of the significance of corporate sustainability and CSR across various academic disciplines. By integrating these topics into education, students can be equipped with the knowledge, skills, and ethical perspectives necessary to promote sustainable practices and contribute to a more sustainable future.

3. Materials and Methods

This study can be categorized as qualitative, descriptive, and exploratory [45]. In terms of methodological strategy, it employs action research [46,47]. As described by Bawden [48], action research is a distinctive approach that involves critically studying real-world events with the intention of effecting change. It blends theory and practice in a critical process. Specifically, in the field of education, Thiollent [49] defines action research as an empirically based form of social research conducted in close collaboration between researchers and participants. It aims to address collective problems or actions through a cooperative and participatory approach. From this perspective, action research is understood in this study as an emergent process that can often be intensified and effectively links participation, social action, and knowledge generation [47].

It is important to note that the CS course was entirely planned in advance by the responsible professors. The fact that the study can be characterized as action research is because, despite the professors' attempts to be impartial in describing the facts in the article, they performed some of the actions reported [46].

Regarding the methods used for analyzing data, document analysis and group discussions were used within an action research design. For document analysis, the READ approach was employed ((i) ready materials, (ii) extract data, (iii) analyze data, and (iv) distil the findings) [50]. For group discussions, it is important to mention that, after each class, the responsible professors (who are also the authors of this article) gathered to write a report on what happened in the classroom, aiming at the research itself. This report included notes on both positive and negative points, perceptions of student behavior, activities carried out, and specific observations that the group of researchers/professors deemed relevant. At the end of the course, all this information was analyzed using Elo and Kyngäs's [51] qualitative content analysis through a deductive approach.

Thus, this study incorporated the aforementioned definitions and procedures into its methodological approach and followed Tripp's educational action research approach [52], which emphasizes collaboration between researchers and educators to develop, imple-

ment, monitor, describe, and evaluate teaching practices. The study encompassed the following steps:

- Step 1—Planning. Initially, the group of professors planned the entire course as well as the procedures for conducting the action research based on the READ approach [50]. A practical improvement was desired through the development of this course aimed at introducing undergraduate students in engineering and management to the CS principles;
- Step 2—Acting. Action was taken by implementing the course in an online format, enabling the participation of professors from various universities and students from across the country. The course involved a total of 8 professors, 2 teaching assistants (PhD candidates), and 146 students;
- Step 3—Observing. The execution of practical exercises and the completion of theoretical questions were required from students on a weekly basis in order to monitor their engagement and learning progress. As previously explained, the researchers, who were also the professors of the course, adopted observation, document analysis, and group discussions in this phase;
- Step 4—Reflecting. The exercises were corrected, and the corresponding grades were assigned to evaluate the overall outcome of the course. This stage concluded the course and enabled all generated material to be structured and analyzed by the researchers.

The course covered several key topics, each of which is discussed in the Results and Discussion section, including the historical evolution and current context of sustainability, the fundamentals of corporate governance, sustainability reporting, the significance of ISO standards in sustainability dimensions, the Management Excellence Model [53], and workshops focusing on sustainability in agribusiness and social issues. These social issues encompassed the conceptualization of CSR and ESG. Additionally, the course explored sustainability in the context of leadership, supply chain management, and its relationship with complexity theory.

The evaluation of the course consisted of a test, various activities, and a final project. For the final project, students were required to assess an organization of their choice based on the criteria established in the Management Excellence Model. This evaluation approach enabled professors to continuously assess students' critical thinking skills and their comprehension of sustainability concepts and aspects.

It is important to note that this study followed the national and institutional research ethics guidelines applicable to our context. Specifically, this study aligns with the National Commission for Research Ethics, the Brazilian authority that deliberates on the subject, particularly within the scope of Resolution CNS No. 510 of 2016 [54].

4. Results and Discussion

4.1. The Course's Main Characteristics

The course under examination aimed to foster collaboration among students from various universities located across different regions of the country, providing them with an in-depth understanding of corporate sustainability. To achieve this objective, the course incorporated the combined efforts of professors from multiple Brazilian universities, utilizing an online format that allows for both synchronous and asynchronous student participation.

The course's inception originated from the State University of Campinas (Unicamp) in Brazil, with the participation of two professors, one of whom is also affiliated with North-West University (South Africa). Additionally, two professors from the State University of São Paulo (UNESP), one professor from the State University of Pará (UEPA), one professor from the Federal University of Alfenas (UNIFAL), and one professor from the University of São Paulo (USP) joined the initiative, representing various esteemed Brazilian universities. Furthermore, a professor from Universidad Católica Del Norte (UCN/Chile) also contributed to the course. Additional information about the team of professors is presented in Table 3.

Table 3. Institution and background of the professors participating in the course.

Institutions	Background
Unicamp (Brazil)	Management and Engineering
UNESP (Brazil)	Food Science and Technology
UNESP (Brazil)	Production Engineering
USP (Brazil)	Psychology
North-West University (South Africa) and Unicamp (Brazil)	Business Administration
UEPA (Brazil)	Management and Engineering
UCN (Chile)	Economics
UNICAL (Brazil)	Management and Engineering

Source: Authors' own creation.

It is important to note the diversity of backgrounds and areas of expertise within the team of professors as well as the presence of HEIs located in different countries. This diversity was intended to provide diverse perspectives on corporate sustainability, enabling students to develop a comprehensive and multifaceted understanding of the subject.

This diversity can also be observed in the group of enrolled students, including backgrounds such as engineering (production, control and automation, mechanical, electrical, computer, manufacturing, environmental, and chemical), administration, data science, mathematics, technological chemistry, pedagogy, philosophy, and languages.

The course's interdisciplinarity, facilitated by the involvement of eight professors, two teaching assistants (PhD candidates), and students from diverse academic backgrounds, yielded the significant advantage of integrating knowledge pertaining to corporate sustainability. The collaboration among the eight professors and two teaching assistants enabled a comprehensive discussion on corporate sustainability and sustainable development. They engaged students in discussions involving practical examples and case studies closely aligned with their everyday realities, encompassing a wide range of practical and academic perspectives.

This comprehensive and diverse approach encouraged students to observe and contemplate corporate sustainability from multiple viewpoints, considering its three dimensions (social, environmental, and economic). As a result, it fostered critical thinking skills and the development of other competencies related to ESD. Notably, one of the core topics emphasized in the course was the challenge of implementing corporate sustainability in order to generate a positive impact across all three dimensions simultaneously, rather than focusing on individual dimensions in isolation, which is fundamental to facing complex challenges related to sustainable development [15].

Furthermore, the course comprised a substantial number of students from diverse higher education programs, contributing to debates and fostering connections between divergent viewpoints regarding the concept of corporate sustainability. This dynamic provided students with the opportunity to analyze perspectives beyond their own field of study or work, engaging in constructive dialogues with professors. Through this interaction, new knowledge was constructed, leading to a deeper understanding of corporate sustainability and reinforcing competencies associated with ESD, including reflexivity, prospective and creative thinking, relational skills, and self-awareness. This is in line with the literature on ESD competencies [25,28].

Moreover, the presence of students from various undergraduate programs and geographic locations in the same course yielded additional benefits, as evidenced by the responses shared in post-class activities. Many of these responses highlighted regional case studies, which, when discussed in the classroom, further developed ESD competencies, particularly in the realms of administration and engineering. The analysis of these case studies served as a reminder of the growing necessity for the integration of corporate sustainability practices within organizations.

It is worth mentioning that the significant number of students and professors involved in the course necessitated the assistance of two teaching assistants in various support activities. These activities encompassed tasks such as managing the preparation, distribution,

and grading of post-class activities, addressing student inquiries, providing support via email, and managing assessments. This engagement allowed the teaching assistants to gain valuable experience in their professional careers.

4.2. Course Content and Main Learning Outcomes

The course content and the post-class practical exercises and theoretical questions are outlined in the following subsections in order to provide a comprehensive overview of the learning experience.

4.2.1. General Context and Historical Evolution of Sustainability

After an examination of the environmental impacts witnessed during the pre-industrial and industrial eras, the course dedicated attention to the historical progression of sustainability, with a specific focus on the evolution of the concept of sustainable development.

Regarding the present context of sustainability, the course engaged in discussions surrounding the following topics: the Integrated Reporting Framework [55] and its implications for the concept of value in business management; the traditional view of sustainability encompassing economic, environmental, and social dimensions [56,57]; and the model proposed by Najjar [58] that expands our understanding of sustainability across four spatial dimensions (culture, environment, economy, and social justice). Additionally, the course examined the Latin American scenario in a post-COVID-19 pandemic context and explored actions aimed at achieving the SDGs within the region.

The post-class activities encompassed a range of exercises to solidify concepts and promote personal and critical analysis. These activities included providing a summary along with a personal and critical analysis of the document *The Heat Is On—A World of Climate Promises Not Yet Delivered* [59]. Additionally, two specific activities were assigned. First, students were prompted to reflect on and exemplify the four dimensions of sustainability presented by Najjar [58]. Second, students were asked to present an example of a sustainable project implemented in their respective regions of residence.

The outcomes observed in these activities were highly positive. The diverse academic backgrounds of the students generated insightful reflections rooted in various scientific fields, while students hailing from different regions of the country contributed examples that embraced the nation's rich diversity. This cross-disciplinary and cross-cultural debate of ideas and experiences resulted in a fruitful exchange of knowledge and perspectives.

4.2.2. Fundamentals of Corporate Governance and the Relationship between Sustainability and Other Current Concepts

The course covered the definition and key characteristics of corporate governance, drawing from the Brazilian Institute of Corporate Governance and its Code of Best Practices of Corporate Governance [60]. This code follows the best international recommendations while also looking at global trends and being periodically updated. The BICG suggests that this code should not be something rigid, but rather an instrument that can be shaped by companies according to their own reality.

Subsequently, the concept of sustainability was explored in relation to the principles of the circular economy and industry 4.0. The concept of the circular economy was discussed based on the work of Kirchherr et al. [61], including practices to enhance its application and barriers highlighted by Govindan and Hasanagic [62]. The growing importance of the circular economy in conjunction with sustainability was addressed, drawing from the research of Alcalde-Calonge et al. [63]. Furthermore, the concept of industry 4.0 and its connection to sustainability were discussed. According to the findings, the implementation of industry 4.0 is expected to have a positive impact on sustainability, particularly through the more efficient use of energy resources, the reduction in logistical activities, the precision in production, the introduction of circular economy practices, and the potential social impact of autonomous and efficient manufacturing processes. However, it is acknowledged

that such changes may also result in job displacement, necessitating the acquisition of new professional qualifications.

As part of the post-class activity, students were required to answer questions aimed at solidifying their understanding of the concepts discussed. Additionally, they were tasked with presenting the main characteristics of a corporate governance structure within an organization of their choice. Furthermore, they were expected to synthesize the key aspects of a smart factory and share their perspectives on the introduction of technology and its relationship with sustainability across the dimensions of culture, the environment, the economy, and social justice.

4.2.3. Sustainability Reporting

This part of the course began by addressing the rationale behind the creation of sustainability reports and their significance as a tool in sustainability governance. The benefits of implementing sustainability reporting in the business context were discussed, including increased organizational transparency, the opportunity for benchmarking and enhancing competitiveness, and demonstrating a commitment to sustainable development [64].

Subsequently, the Global Reporting Initiative (GRI) and its standards were introduced. Specific examples of standards were presented, such as GRI 305, which focuses on emissions, and GRI 405, which addresses diversity and equal opportunities. The relationship between the GRI and the SDGs was also explored, particularly in the context of the Oil and Gas sector (GRI 11). Additionally, the Integrated Reporting Framework [55] standard and its structure were discussed.

As part of the post-class activity, students were given questions to solidify their understanding of the concepts covered. They were also instructed to select an item from a GRI report and locate corresponding data in five sustainability reports from different organizations. Subsequently, they were required to analyze the quality of the data found in the sustainability reports and present their opinions.

4.2.4. The Importance of ISO Standards for Sustainability Dimensions

An introduction was provided to the standards of the International Organization for Standardization (ISO), emphasizing their development based on the principles of consensus, scope, and voluntariness. The course also covered the high-level structure outlined in the ISO Management System Standard. The significance of the ISO standards was discussed, particularly in the context of the profound changes brought about by the COVID-19 pandemic.

Sevaral ISO standards were discussed, including those related to quality management, risk management, audit, safety, environmental management, sustainability, energy, social responsibility, business continuity and innovation. The course delved into a discussion of these standards and their connections with sustainability concepts. Additionally, the definition of Integrated Management Systems was presented, along with their characteristics, benefits, and the main challenges encountered during the integration process.

As part of the post-class activity, students were provided with questions to solidify their understanding of the concepts discussed. They were also tasked with presenting a case study of an organization that underwent a significant disruption in its business model during the COVID-19 pandemic. The concepts of disruption and business continuity should align with the principles outlined by ISO.

4.2.5. The Management Excellence Model

Firstly, the course introduced internationally recognized quality awards such as the Deming Prize (Japan), the Malcolm Baldrige National Quality Award (USA), and the European Foundation for Quality Management Excellence Award (EFQM). Each of these awards has a distinct vision of excellence, but they all recognize the significance of sustainable development in achieving excellence.

Subsequently, the course presented the Brazilian "Best in Management" award granted by the National Quality Foundation (NQF) and discussed the structure of the Management Excellence Model [53], which serves as the evaluation framework for the "Best in Management" award. The course emphasized the inclusion of sustainable development as one of the eight foundations for the evaluation of excellence within the Management Excellence Model.

The post-class activities included questions aimed at reinforcing key concepts as well as a specific activity in which students were required to present their understanding and critical viewpoint regarding selected pieces of academic literature on the topic. This study revealed that the mere participation of an organization in the Brazilian "Best in Management" award can lead to notable improvements in its management processes. Students were encouraged to critically analyze and share their perspectives on the findings and implications of this study.

In the final project, students were tasked with analyzing the management maturity of an organization through the following series of steps:

- Step 1: Students selected an organization for a detailed analysis of its management model;
- Step 2: Using the evaluation mechanism of the Management Excellence Model and taking into consideration the sector, mission, business model, and objectives of the chosen organization, students assigned scores to each Management Excellence Model principle. It is important to note that sustainable development is one of the Management Excellence Model's principles;
- Step 3: The scores were entered into a spreadsheet provided by the professor, which automatically calculated the overall score of the chosen organization based on the Management Excellence Model. Once the overall score had been obtained, students generated a report justifying their choice of scores and classified the organization's management maturity within one of the ranges established by the NQF.

By following these steps, students gained a deeper understanding of the organization's management practices and were able to critically evaluate its level of maturity in relation to the Management Excellence Model principles, including the aspect of sustainable development.

4.2.6. Sustainability and Agribusiness

This part of the course covered various topics related to agribusiness, including the following:

- The evolution and transformation of the agribusiness production chain;
- The application of the lean methodology as a continuous improvement method in agribusiness;
- The importance of environmental preservation for the sustainable development of agribusiness;
- Brazil's representation in international agro-commerce;
- The significance of family farming in Brazil.

Practical examples illustrating these subjects were provided, with a particular focus on the application of the lean methodology. As an example, the academic literature related to the enhancement of administrative management and the reduction of waste in family farming through the application of lean and other related methodologies was discussed. This and other examples related to the aforementioned topics demonstrated how theoretical concepts can be put into practice to improve efficiency and sustainability in the agribusiness sector.

4.2.7. Sustainability and Social Issues

A workshop was conducted on the topic of "ESG and a living wage" as part of the Sustainability and Social Issues module. The workshop explored how social development

has gained significance in developing countries and how consumption patterns have contributed to global inequalities and environmental crises.

During the workshop, the main characteristics of CSR and ESG were presented. These frameworks emphasize the importance of adopting sustainable practices that encompass economic, environmental, and social dimensions. Various examples were shared to illustrate the significance of the social dimension in sustainability, and the workshop also highlighted the role of conscious capitalism in driving societal culture change. Furthermore, a roadmap was presented and discussed in order to determine the level of income that would be sufficient to provide a decent standard of living to families. This discussion aimed to promote the concept of a living wage, which is essential to ensuring fair compensation and improving levels of corporate governance.

The workshop encouraged participants to reflect on the interplay between ESG factors, sustainability, and social issues, fostering a deeper understanding of the importance of social development and its impact on corporate practices.

4.2.8. Sustainability and Leadership in Business Contexts

The module began by introducing the concept of leadership and its historical evolution, exploring different leadership styles and their connection with the general theory of contingency management. This provided a foundation for understanding how leadership and sustainability intersect within a business context. The module also delved into the relationship between leadership and individual characteristics, emphasizing how a leader's personality traits and personal qualities can influence the motivation and performance of their team members.

To enhance comprehension, each leadership style was exemplified, allowing for a deeper exploration of the psychological and motivational impact on individuals' needs. Factors such as the need for security, social connections, self-esteem, and self-actualization were discussed to highlight their influence on leadership and team dynamics.

By examining the connection between leadership styles, human needs, and motivation, the module aimed to develop a comprehensive understanding of how effective leadership practices can foster sustainable outcomes within organizations.

4.2.9. Sustainability and Supply Chain Management (SCM)

The module began by emphasizing the significance of organizations incorporating sustainability as a fundamental pillar and promoting sustainable practices within the supply chain market. It highlighted the importance of sustainable logistics systems for companies operating in Brazil.

Furthermore, the module delved into the perspectives of supply chain professionals in Brazil regarding sustainable logistics practices. It examined how these professionals perceive and approach social sustainability within logistics systems as outlined by Martins et al. [65].

By addressing both the current state of sustainable practices in logistics systems and providing a roadmap for enhancing social sustainability within these systems, the module aimed to equip students with valuable insights and strategies to drive positive change and sustainable development in the supply chain industry.

4.2.10. Sustainability and Complexity Theory

The final part of the course commenced by providing an overview of complexity theory (CT), elucidating its unique perspective and how it fosters new behaviors that integrate human–environment relationships systemically. The discussion extended to the integration of sustainability education within higher education in Brazil, drawing upon the principles of complexity science. The interconnectedness of sustainability dimensions was briefly explored, emphasizing the significance of adopting a thoughtful and reflective approach to sustainability.

Additionally, the module emphasized the importance of the SDGs established by the United Nations. It delved into the challenges posed by traditional paradigms and the profound impact of the pandemic. It underscored the need to adapt to this evolving scenario through a complexity-based lens to effectively address future challenges [15].

By addressing the concepts of complexity theory, sustainability education, and the relevance of the SDGs, the module aimed to equip students with a comprehensive understanding of how complex systems thinking can drive transformative change and address sustainability challenges in a rapidly changing world.

4.3. Synthesis and Key Takeaways for Training Managers in Corporate Sustainability

In outlining the primary features and learning outcomes of the CS course, the challenge of integrating a wide range of topics involving various aspects of sustainability becomes evident (Figure 1). It is also important to note that integrating students with diverse backgrounds is not an easy task, and planning classes with teachers that have different experiences and areas of expertise requires time and a high degree of need for alignment.
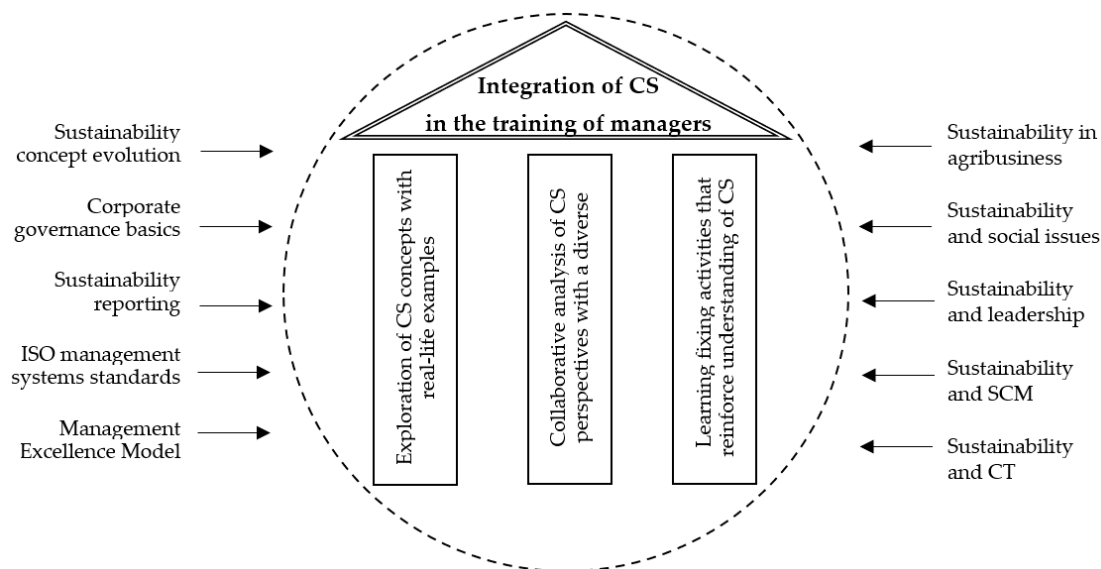

Figure 1. Main topics in and benefits of the CS course. Source: Authors' own creation.

Despite this, several benefits were observed, among which the following stand out:

- The comprehensive definition and discussion of CS concepts, accompanied by a diverse range of practical and academic examples and case studies;
- Opportunities for students to analyze CS concepts and perspectives in collaboration with peers and professors from various disciplines;
- Post-class activities involving regional examples or case studies, fostering the development of in-depth knowledge of CS through shared discussions during classes.

When comparing the CS course outlined in this paper with other courses found in the literature, it is possible to observe differences and benefits. Firstly, the CS course stands out due to its comprehensive coverage of various sustainability dimensions. It addresses sustainability reporting, the importance of ISO standards, the Management Excellence Model, and workshops focusing on sustainability in agribusiness and social issues. Moreover, it explores sustainability within leadership, supply chain management, and complexity theory contexts. This breadth of topics ensures that students gain a holistic understanding of corporate sustainability and its multifaceted implications. In contrast, the course described by Gonzalez et al. [34] likely provides a more specialized focus on CSR principles and practices within business and management contexts. While CSR is a crucial component of corporate sustainability, this course may lack the interdisciplinary approach and broader scope of the CS course.

Similarly, the course presented by Peterka-Benton and Benton [35] emphasizes understanding the cultural nuances impacting CSR in public relations, marketing, communication, and business. While cultural sensitivity is essential in sustainability efforts, this course may offer insights primarily relevant to specific cultural contexts, unlike the broader coverage of sustainability issues in the CS course.

Lastly, the course presented by Salinas-Navarro et al. [36] targets industrial and systems engineering students, focusing on sustainable practices within supply chains. While supply chain management is crucial for sustainability, this course may have a narrower focus compared with the CS course, which explores sustainability across various organizational functions and dimensions.

Overall, the CS course presented in this study excels in providing a comprehensive understanding of corporate sustainability by integrating a diverse range of topics, fostering collaboration across disciplines, and incorporating practical examples and case studies. Its interdisciplinary approach ensures that students develop the knowledge and skills necessary to address sustainability challenges effectively in business contexts.

4.4. How Training Professionals in CS Can Contribute to SDGs

As discussed in the previous sections, training professionals in CS can contribute to various SDGs, including SDG 7 (affordable and clean energy), SDG 9 (industry, innovation, and infrastructure) and SDG 13 (climate action).

4.4.1. SDG 7: Affordable and Clean Energy

The CS training program is instrumental in preparing professionals to tackle challenges in green energy, the energy transition, and energy efficiency. It offers a comprehensive curriculum with interconnected modules that collectively shape a generation of professionals dedicated to sustainable energy practices.

The program emphasizes the integration of sustainability goals into corporate governance, providing professionals with a nuanced understanding of how to leverage governance principles for the seamless integration of green energy and energy efficiency objectives. Transparent sustainability reporting enhances communication about energy-related initiatives, showcasing organizational commitment and facilitating effective communication with stakeholders.

Training in ISO standards ensures expertise in implementing energy management systems, fostering a structured approach to energy efficiency. In relation to this, continuous improvement models instill a culture of ongoing enhancement, guiding professionals in identifying and implementing energy-efficient practices for organizational excellence.

The program also addresses sustainable agribusiness, promoting the integration of renewable energy and optimizing energy usage in agriculture. Finally, in sustainable supply chain management, professionals contribute to reducing the carbon footprint, adopt circular economy practices, and design supply chains for waste reduction and resource optimization in order to foster a more sustainable and energy-efficient system.

4.4.2. SDG 9: Industry, Innovation, and Infrastructure

The CS program integrates key elements in order to equip professionals with a systemic understanding of green innovation and sustainable industrialization. The focus on corporate governance provides a foundation for strategic decision-making, ensuring that professionals can align their choices with sustainability goals. Transparent communication through sustainability reporting further emphasizes the commitment to green practices, laying the groundwork for sustainable industrialization efforts.

The incorporation of ISO standards and Management Excellence Models contributes to structured implementation and continuous improvement. Professionals trained in these standards gain the expertise needed to systematically implement and enhance sustainable practices, fostering a culture of innovation within industrial processes.

The sustainable agribusiness component of the program emphasizes resource optimization and encourages the adoption of innovative farming practices. These principles extend beyond agriculture, providing professionals with insights applicable to a diverse range of industries for sustainable resource management.

Sustainable leadership is a core aspect of the program, instilling a strategic vision for championing green initiatives. The emphasis on employee engagement cultivates a culture of innovation and environmental responsibility within organizations.

Lastly, the focus on sustainable SCM can contribute to equipping professionals with the knowledge they need to deal with green innovation. This involves incorporating eco-friendly sourcing and logistics as well as designing circular supply chains that reduce waste and optimize resources, thereby fostering sustainable industrialization. The integration of these program components ensures that professionals are well-prepared to address the complexities of driving innovation and sustainability within corporate settings.

4.4.3. SDG 13: Climate Action

The CS program provides a comprehensive approach to training professionals to address climate change challenges. The integration of corporate governance and sustainability reporting ensures that professionals are equipped for strategic decision-making, allowing them to seamlessly incorporate sustainability goals into corporate governance. This strategic alignment considers environmental impacts and fosters climate resilience, creating a foundation for proactive climate action.

As previously discussed, ISO standards and Management Excellence Models play a crucial role in the program, offering professionals expertise in implementing structured sustainability practices. This structured approach contributes significantly to climate change mitigation, providing systematic methods that organizations can use to reduce their environmental footprint. The focus on continuous improvement further guides professionals in identifying and implementing innovative and sustainable practices, creating a culture of ongoing adaptation to climate-related challenges.

Sustainable agribusiness, another key component, imparts knowledge on resilient agricultural practices and emission reduction strategies. Professionals learn to adapt agricultural processes to changing climate conditions, ensuring food security and sustainable resource management. The program emphasizes the role of agriculture in mitigating emissions, promoting climate-friendly agribusiness practices that align with broader climate action goals.

Sustainable leadership principles embedded in the program instill a strategic vision for climate action, encouraging professionals to champion proactive approaches within their organizations. Employee engagement is underscored, emphasizing the importance of creating a workforce committed to climate resilience.

Lastly, the focus on sustainable SCM and circular economy practices enables professionals to actively contribute to climate change mitigation. By reducing the carbon footprint and designing supply chains that optimize resource use, professionals play a crucial role in fostering a more sustainable and climate-resilient system. Thus, the integration of these program components ensures that professionals are well-prepared to address the multifaceted challenges posed by climate change.

5. Conclusions

HEIs around the world have been progressively integrating corporate sustainability topics into diverse fields of knowledge, including business management, marketing, engineering, economics, and finance. While this inclusion has typically occurred within individual areas of knowledge, there is a need to bridge the gap and embrace the transdisciplinary approach proposed by ESD. This integrative course serves as an example of bringing together professors and students from different disciplines to enhance the teaching and learning of corporate sustainability.

The key takeaway from this study is the significant potential for integrating professors and students from different disciplines in teaching corporate sustainability. While this initiative and good practices have been presented, it is crucial to recognize that there are ongoing opportunities and challenges. The experience reported here, which brought together different universities, can benefit other universities and companies, fostering new and improved experiences for future professionals who will be at the forefront of public and private organizations in various economic sectors and social and cultural contexts. Academic communities need to engage in further debates to improve higher education courses, and professors should actively promote the integration of sustainable teaching by fostering collaboration across different programs and courses. The authors of this paper hope that students who have taken this course will reflect on their future roles in society and evaluate their actions accordingly.

This paper may be valuable to researchers and educators seeking to integrate CS subjects into their teaching programs. For educators, the results serve as initial guidelines to avoid common pitfalls and achieve positive outcomes more efficiently. Additionally, the course content (see Section 4.2) and the links to SDGs (see Section 4.4) may serve as a framework for developing new innovations in sustainability practices and enhancing professional training programs. Researchers can utilize this paper as a starting point for developing innovative teaching practices that facilitate the process of learning about sustainability concepts and specific assessment methods to measure learning outcomes.

It is important to acknowledge the limitations of this paper. The study was conducted during the single semester when the course was offered. Analyzing the course's impact over an extended period would provide more robust and insightful results. Additionally, cultural factors may have influenced the outcomes, as different countries have varying characteristics that can impact upon the effectiveness of integrative CS initiatives. Conducting similar action research in other countries would provide useful comparative insights.

References

1. Grosseck, G.; Țîru, L.G.; Bran, R.A. Education for Sustainable Development: Evolution and Perspectives: A Bibliometric Review of Research, 1992–2018. *Sustainability* **2019**, *11*, 6136. [CrossRef]
2. UNESCO. ESD—Building a Better, Fairer World for the 21st Century. Available online: https://unesdoc.unesco.org/ark:/48223/pf0000216673 (accessed on 25 January 2024).
3. Aung, P.N.; Hallinger, P. The Intellectual Structure of the Literature on Sustainability Leadership in Higher Education: An Author Co-Citation Analysis. *Int. J. Educ. Manag.* **2022**, *36*, 784–799. [CrossRef]

4. Metsämuuronen, J.; Kuosa, T.; Laukkanen, R. Sustainable Leadership and Future-oriented Decision Making in the Educational Governance—A Finnish Case. *Int. J. Educ. Manag.* **2013**, *27*, 402–424. [CrossRef]

5. Huang, Y.-F.; Do, M.-H. Review of Empirical Research on University Social Responsibility. *Int. J. Educ. Manag.* **2021**, *35*, 549–563. [CrossRef]

6. Eizenberg, E.; Jabareen, Y. Social Sustainability: A New Conceptual Framework. *Sustainability* **2017**, *9*, 68. [CrossRef]

7. Acosta-Castellanos, P.M.; Queiruga-Dios, A.; Hernández Encinas, A.; Acosta, L.C. Environmental Education in Environmental Engineering: Analysis of the Situation in Colombia and Latin America. *Sustainability* **2020**, *12*, 7239. [CrossRef]

8. Fitzpatrick, J.J. Does Engineering Education Need to Engage More with the Economic and Social Aspects of Sustainability? *Eur. J. Eng. Educ.* **2017**, *42*, 916–926. [CrossRef]

9. Jose, S.; Chacko, J. Building a Sustainable Higher Education Sector in the UAE. *Int. J. Educ. Manag.* **2017**, *31*, 752–765. [CrossRef]

10. Deus, R.M.; Battistelle, R.A.G.; da Silva, G.H.R. Sustainability Insights from the Mission Statements of Leading Brazilian Universities. *Int. J. Educ. Manag.* **2016**, *30*, 403–415. [CrossRef]

11. Chinedu, C.C.; Wan Mohamed, W.A.; Ajah, A.O. A Systematic Review on Education for Sustainable Development: Enhancing Tve Teacher Training Programme. *J. Tech. Educ. Train.* **2018**, *10*, 109–125. [CrossRef]

12. França, S.L.B.; Quelhas, O.L.G.; Shimoda, E.; Hippertt, G.O. Competences for environmental performance in a Brazilian oil company. *Int. J. Environ. Sustain. Dev.* **2012**, *11*, 321–338. [CrossRef]

13. United Nations. *Transforming Our World: The 2030 Agenda for Sustainable Development*; United Nations: New York, NY, USA, 2015.

14. United Nations. SDG 4: Ensure Inclusive and Equitable Quality Education and Promote Lifelong Learning Opportunities for All. Available online: https://sdgs.un.org/goals/goal4 (accessed on 25 January 2024).

15. Sigahi, T.F.A.C.; Rampasso, I.S.; Anholon, R.; Sznelwar, L.I. Classical Paradigms versus Complexity Thinking in Engineering Education: An Essential Discussion in the Education for Sustainable Development. *Int. J. Sustain. High. Educ.* **2023**, *24*, 179–192. [CrossRef]

16. UNESCO. *Education for Sustainable Development: A Roadmap*; UNESCO: Paris, France, 2020.

17. Weybrecht, G. Business Schools Are Embracing the SDGs—But Is It Enough?—How Business Schools Are Reporting on Their Engagement in the SDGs. *Int. J. Manag. Educ.* **2022**, *20*, 100589. [CrossRef]

18. Lozano, R.; Lozano, F.J.; Mulder, K.; Huisingh, D.; Waas, T. Advancing Higher Education for Sustainable Development: International Insights and Critical Reflections. *J. Clean. Prod.* **2013**, *48*, 3–9. [CrossRef]

19. Wals, A.E.J. *Review of Contexts and Structures for Education for Sustainable Development*; UNESCO: Paris, France, 2009.

20. Tejedor, G.; Segalàs, J.; Rosas-Casals, M. Transdisciplinarity in Higher Education for Sustainability: How Discourses Are Approached in Engineering Education. *J. Clean. Prod.* **2018**, *175*, 29–37. [CrossRef]

21. Hilger, A.; Keil, A. Education for Sustainable Development with Transdisciplinary-Oriented Courses—Experiences and Recommendations for Future Collaborations in Higher Education Teaching. *J. Geogr. High. Educ.* **2022**, *46*, 427–446. [CrossRef]

22. Corazza, L.; Saluto, P. Universities and Multistakeholder Engagement for Sustainable Development: A Research and Technology Perspective. *IEEE Trans. Eng. Manag.* **2021**, *68*, 1173–1178. [CrossRef]

23. Mauser, W.; Klepper, G.; Rice, M.; Schmalzbauer, B.S.; Hackmann, H.; Leemans, R.; Moore, H. Transdisciplinary Global Change Research: The Co-Creation of Knowledge for Sustainability. *Curr. Opin. Environ. Sustain.* **2013**, *5*, 420–431. [CrossRef]

24. Thayer, T. Identifying Similarities and Differences in Sustainability Education and Foresight and Futures Education: A Comparative Analysis of Competence Frameworks. *Horiz. Int. J. Learn. Futures* **2023**, *31*, 95–109. [CrossRef]

25. Gey, N.; Pellaud, F.; Blandenier, G.; Lepareur, C.; Massiot, P.; Shankland, R.; Gay, P. Assessment of Cross-Cutting Competences in Education for Sustainable Development. *Environ. Educ. Res.* **2022**, *29*, 766–782. [CrossRef]

26. Lozano, R.; Merrill, M.; Sammalisto, K.; Ceulemans, K.; Lozano, F. Connecting Competences and Pedagogical Approaches for Sustainable Development in Higher Education: A Literature Review and Framework Proposal. *Sustainability* **2017**, *9*, 1889. [CrossRef]

27. Lambrechts, W.; Mulà, I.; Ceulemans, K.; Molderez, I.; Gaeremynck, V. The Integration of Competences for Sustainable Development in Higher Education: An Analysis of Bachelor Programs in Management. *J. Clean. Prod.* **2013**, *48*, 65–73. [CrossRef]

28. Quelhas, O.L.G.; Lima, G.B.A.; Ludolf, N.V.-E.; Meiriño, M.J.; Abreu, C.; Anholon, R.; Vieira Neto, J.; Rodrigues, L.S.G. Engineering Education and the Development of Competencies for Sustainability. *Int. J. Sustain. High. Educ.* **2019**, *20*, 614–629. [CrossRef]

29. Montiel, I.; Delgado-Ceballos, J. Defining and Measuring Corporate Sustainability. *Organ. Environ.* **2014**, *27*, 113–139. [CrossRef]

30. Van Marrewijk, M. Concepts and Definitions of CSR and Corporate Sustainability: Between Agency and Communion. *J. Bus. Ethics* **2003**, *44*, 95–105. [CrossRef]

31. Neubaum, D.O.; Zahra, S.A. Institutional Ownership and Corporate Social Performance: The Moderating Effects of Investment Horizon, Activism, and Coordination. *J. Manag.* **2006**, *32*, 108–131. [CrossRef]

32. Landrum, N.E.; Ohsowski, B. Identifying Worldviews on Corporate Sustainability: A Content Analysis of Corporate Sustainability Reports. *Bus. Strategy Environ.* **2018**, *27*, 128–151. [CrossRef]

33. Lieshout, J.W.F.C.; Nijhof, A.H.J.; Naarding, G.J.W.; Blomme, R.J. Connecting Strategic Orientation, Innovation Strategy, and Corporate Sustainability: A Model for Sustainable Development through Stakeholder Engagement. *Bus. Strategy Environ.* **2021**, *30*, 4068–4080. [CrossRef]

34. Gonzalez, S.; Erogul, M.S.; Barragan, S. Similarities and Differences in Teaching Corporate Social Responsibility: Evidence from Mexico and Canada. *J. Effic. Responsib. Educ. Sci.* **2016**, *9*, 70–80. [CrossRef]

35. Peterka-Benton, D.; Benton, B. Globalizing Online Learning: Exploring Culture, Corporate Social Responsibility, and Domestic Violence in an International Classroom. *E-Learn. Digit. Media* **2019**, *16*, 267–283. [CrossRef]
36. Salinas-Navarro, D.E.; Mejia-Argueta, C.; Montesinos, L.; Rodriguez-Calvo, E.Z. Experiential Learning for Sustainability in Supply Chain Management Education. *Sustainability* **2022**, *14*, 13133. [CrossRef]
37. Kraten, M.; Stuebs, M.T. Corporate Sustainability and Social Responsibility in the Accounting Profession: Educational Tools to Advance Accounting Ethics Education. In *Accounting Ethics Education: Making Ethics Real*; Costa, A., Pinheiro, M., Eds.; Routledge: New York, NY, USA, 2021.
38. Pedersen, E.R.G.; Andersen, K.R.; Diaz Schiavon, A.L. Diffusing Corporate Sustainability Knowledge with Online Education: Experiences from a Massive Open Online Course (MOOC) on Sustainable Fashion. *J. Int. Educ. Bus.* **2022**, *15*, 89–105. [CrossRef]
39. Kolb, M.; Fröhlich, L.; Schmidpeter, R. Implementing Sustainability as the New Normal: Responsible Management Education—From a Private Business School's Perspective. *Int. J. Manag. Educ.* **2017**, *15*, 280–292. [CrossRef]
40. McClelland, C.J.; Smith, J.M.; Smith, N.M. Bringing Corporate Social Responsibility into the Petroleum Engineering Classroom. In Proceedings of the 2016 IEEE Frontiers in Education Conference (FIE), Erie, PA, USA, 12–15 October 2016; pp. 1–5.
41. García-Rosell, J.-C. Struggles over Corporate Social Responsibility Meanings in Teaching Practices: The Case of Hybrid Problem-Based Learning. *Manag. Learn.* **2013**, *44*, 537–555. [CrossRef]
42. Schulz, K.-P.; Finstad-Milion, K.; Janczak, S. Educating Corporate Sustainability—A Multidisciplinary and Practice-Based Approach to Facilitate Students' Learning. *J. Clean. Prod.* **2018**, *198*, 996–1006. [CrossRef]
43. Alonso-Martínez, D.; Jiménez-Parra, B.; González-Álvarez, N.; Godos-Díez, J.-L.; Cabeza-García, L. Taking Advantage of Students' Passion for Apps in Sustainability and CSR Teaching. *Sustainability* **2019**, *11*, 779. [CrossRef]
44. Sheehan, N.T.; Fox, K.A.; Klassen, M.; Vaidyanathan, G. Threshold Concepts and ESG Performance: Teaching Accounting Students Reconceptualized Fundamentals to Drive Future ESG Advocacy. *Account. Educ.* **2022**, *33*, 84–108. [CrossRef]
45. Gil, A.C. *How to Design Research Projects*; Atlas: São Paulo, Brazil, 2015.
46. Coughlan, P.; Coghlan, D. Action Research for Operations Management. *Int. J. Oper. Prod. Manag.* **2002**, *22*, 220–240. [CrossRef]
47. Greenwood, D.J.; Whyte, W.F.; Harkavy, I. Participatory Action Research as a Process and as a Goal. *Hum. Relat.* **1993**, *46*, 175–192. [CrossRef]
48. Bawden, R. Towards Action Research Systems. In *Action Research for Change and Development*; Routledge: London, UK, 1991; p. 26, ISBN 9781003248491.
49. Thiollent, M. Action Research Methodology. *Int. J. Action Res.* **2011**, *7*, 160–174.
50. Dalglish, S.L.; Khalid, H.; McMahon, S.A. Document Analysis in Health Policy Research: The READ Approach. *Health Policy Plan* **2021**, *35*, 1424–1431. [CrossRef]
51. Elo, S.; Kyngäs, H. The Qualitative Content Analysis Process. *J. Adv. Nurs.* **2008**, *62*, 107–115. [CrossRef]
52. Tripp, D. Action Research: A Methodological Introduction. *Educ. Res.* **2005**, *31*, 443–466.
53. National Quality Foundation Management Excellence Model. Available online: https://fnq.org.br/plataforma-meg-21/ (accessed on 25 January 2024).
54. Conselho Nacional de Saúde. Resolução No. 510, de 07 de Abril de 2016; Brazil. 2016. Available online: https://conselho.saude.gov.br/resolucoes/2016/Reso510.pdf (accessed on 25 January 2024).
55. IFRS Foundation. International Integrated Reporting Framework. 2023. Available online: https://integratedreporting.ifrs.org/resource/international-ir-framework/ (accessed on 25 January 2024).
56. Elkington, J. *Cannibals with Forks—Triple Bottom Line of 21st Century Business*; New Society Publisher: Gabriola, BC, Canada, 1997.
57. Corral Granados, A.; Granados Gámez, G. Sustainability and Triple Bottom Line: Key Issues for Successful Spanish School Principals. *Int. J. Educ. Manag.* **2010**, *24*, 467–477. [CrossRef]
58. Najjar, R. Four Dimensional Spatial Sustainability (4DSS): A Revolutionary Approach toward Utopian Sustainability. *Discov. Sustain.* **2022**, *3*, 21. [CrossRef]
59. UNEP. *The Heat Is On—A World of Climate Promises Not Yet Delivered*; UNEP: Nairobi, Kenya, 2021.
60. Brazilian Institute of Corporate Governance. *Code of Best Practices of Corporate Governance*; IBGC: São Paulo, Brazil, 2015.
61. Kirchherr, J.; Reike, D.; Hekkert, M. Conceptualizing the Circular Economy: An Analysis of 114 Definitions. *Resour. Conserv. Recycl.* **2017**, *127*, 221–232. [CrossRef]
62. Govindan, K.; Hasanagic, M. A Systematic Review on Drivers, Barriers, and Practices towards Circular Economy: A Supply Chain Perspective. *Int. J. Prod. Res.* **2018**, *56*, 278–311. [CrossRef]
63. Alcalde-Calonge, A.; Sáez-Martínez, F.J.; Ruiz-Palomino, P. Evolution of Research on Circular Economy and Related Trends and Topics. A Thirteen-Year Review. *Ecol. Inform.* **2022**, *70*, 101716. [CrossRef]
64. *Global Reporting Initiative GRI 101: Foundation*; GRI: Amsterdam, The Netherlands, 2018.
65. Martins, V.W.B.; Anholon, R.; Quelhas, O.L.G.; Leal Filho, W. Roadmap to Enhance the Insertion of Social Sustainability in Logistics Systems. *Int. J. Product. Perform. Manag.* **2022**, *72*, 2838–2858. [CrossRef]