

FUNDAÇÃO GETULIO VARGAS
ESCOLA DE ADMINISTRAÇÃO DE EMPRESAS DE SÃO PAULO

MARIANA REIS DE ASSUMPÇÃO GHIZZI

**STATE-OF-THE-ART PRACTICES BEING REPORTED BY THE PRME
CHAMPIONS GROUP: A REFERENCE TO ADVANCE EDUCATION FOR
SUSTAINABLE DEVELOPMENT**

SÃO PAULO
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Applied thesis presented to the Escola de Administração de Empresas de São Paulo (EAESP), from Fundação Getúlio Vargas, as a requirement to obtain the master's degree in Management for Competitiveness.

Field of Knowledge:
Sustainability

Advisor: Dr. Mario Monzoni

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Board of examiners:

Dr Mario Monzoni
Coordinator of the Centre of Studies in
Sustainability from Fundação Getulio
Vargas

Dra Priscila Borin Claro
Faculty and Corporate Social
Responsibility Coordinator at Insper;
Co President of PRME Brazil

Dr Gustavo Andrey
Researcher of the Centre of Public
Administration; São Paulo School of
Business Administration / FGV – EAESP

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“We cannot solve our problems
with the same level of thinking that created them”.

Albert Einstein

Abstract

This study aims to offer a diagnostic of the “state-of-the-art” practices being reported throughout the Sharing Information Process (SIP) by the Champions Group, a group of schools that are signatories of the Principles of Responsible Management Education (PRME, a United Nations Global Compact initiative), committed to spearheading transformational change toward more socially and environmentally responsible leadership. The study also suggests an analytical model - based on qualitative research and documentary analysis – to define the study sample, investigate data, identify patterns, organise and codify a large amount of information within all reports searched. The analytical model represents a framework in which the result is a collection of practices being reported, functioning as a useful guide and practical reference for higher educational institutions – signatory or otherwise – when promoting or advancing transformational change in their business model. The framework could also be valuable for Graduate Schools – or even Primary Schools to High Schools – considering the urgency of the 2030 Agenda, especially its 4.7 target, referred to as “An education for sustainable development and global citizenship”.

Keywords: Sharing Information Process (SIP); Champions Group; Principles of Responsible Management Education (PRME); Responsible Leadership; Socially and Environmentally Responsible Leadership; State-Of-The-Art Practices; Framework; Higher Education Institutions; 2030 Agenda; Education for Sustainable Development; Global Citizenship.

Resumo

Este estudo propõe um diagnóstico do que seria o estado da arte das práticas sendo reportadas através dos relatórios SIP (Sharing Information Process) pelo Champions Group, um grupo de escolas de negócios que são signatárias do Principles of Responsible Management Education (PRME, uma iniciativa da Organização das Nações Unidas pelo Pacto Global) e que se comprometeram a liderar mudanças transformacionais em direção a formação de lideranças mais responsáveis quanto a aspectos sociais e ambientais. O estudo também sugere um modelo analítico – baseado em pesquisa qualitativa e análise documental – para os processos de definição da amostra de pesquisa, de investigação de informações, identificação de padrões, organização e codificação de uma vasta quantidade de dados contidos no total de relatórios pesquisados. O modelo analítico representa um framework no qual o resultado corresponde a compilação das práticas reportadas, representando um guia útil e uma referência prática para instituições de ensino superior – signatárias ou não do PRME – quando estiverem promovendo ou avançando em mudanças transformacionais de seu modelo de negócio. O framework pode também ter valor para escolas de Graduação – ou mesmo para escolas de ensino fundamental e ensino médio – considerando a urgência destacada na Agenda 2030, especialmente na meta 4.7, que faz referência a “uma educação para o desenvolvimento sustentável e para a cidadania global”.

Palavras-chave: Sharing Information Process (SIP); Champions Group; Principles of Responsible Management Education (PRME); Liderança Responsável; Responsabilidade Social e Ambiental; Estado da arte em práticas reportadas; Framework; Instituições de Ensino Superior; Agenda 2030; Educação para o Desenvolvimento Sustentável; Cidadania Global.

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1. Introduction

1.1. Previous Reflection

Imagine you were part of a group of senior leaders of a worldwide company, and the group was designated to find new cost efficiencies revising the long-term strategic plan for the operational footprint of the company for the next 10 to 15 years, involving the quantity and location of many sites in a developing country. What drivers would you consider relevant to influence the decision and how would you prioritise them? Traditionally, with the mind focused on maximising return on investments for the company - and maybe on your own bonus for the coming years -, the expected answers would be related to production variables, utilities, and distribution costs, maybe fiscal fees, and the availability of supplies. If the cost equation shows a positive return on investment and legal requirements are met, projects become potential plans for consideration. But what else could possibly be considered besides an equation limited to translating company financial results and compliance standards?

What if someone in the group suggests analysing other variables such as the water reserves context and trends of each region where plants operate – or plan to begin operations - extending the scope of the plan for the next 15 to 20 years? Or if someone suggests analysing the social impact related to opening or closing a unit in each community where the company operates or plans to enter? Or even suggests analysing the emissions impact of each of the scenarios considered as possible footprints in future, checking if, for instance, the most profitable scenario might increase emissions? Considering those variables, partly dependant on external factors or unfamiliar evaluations, what kind of reaction would members of the group have when facing those subjects? And to what extent would the company itself clearly set the limits of its responsibility for the effect of corporate operations over those social and environmental factors? Thinking from an individual perspective, how comfortable or motivated would you feel dealing with all those other factors and variables besides the economically driven equation focused mainly – or exclusively – on cost efficiency and financial results, which, by the way, you have been educated on in the best business schools? Joining too many variables with different factors and knowledge, and also varying perspectives of results over time, seems to create more complexity, more combinations of scenarios, higher levels of uncertainty, and probably requires a new

set of knowledge and more time or resources to pursue final decisions. When considering different circumstances and needs, it is important to reflect on how society has been educated or prepared to deal with all of that.

After this reflection and despite the different backgrounds of the opinion or experience of each reader, it is important to note that the sum of all traditional self-centred decisions focused on corporate or individual benefit has inflicted side-effects and negative conditions upon society for many decades. The desire to maximise profit and returns on behalf of exclusively corporate or individual interests in the competitive “economy of growth” has forced society to face collective challenges and risks that, paradoxically, threaten its own stability upon which the traditional idea of “success” depends. Climate change or water and waste crises are just some of the impacts of multiple, self-centred decisions, and they have threatened the stability and performance of many corporations worldwide, forcing them to respond or interact with new variables and factors that were, in some way, hidden before. Facing new threats, such as the ones mentioned and many others, corporate leaders have responded in a much more reactive manner, considering risk management rather than proactive or preventive actions. The traditional pattern of decision-making, self-oriented toward financial results and short-term outcomes, seems to persist even if society recognises new challenges for humanity. If society has generated challenges that threatens its own stability, how can people change the way they take decisions in order to change the course of their own history? Considering the Albert Einstein quote (Dashfield, 2017), which says that “we cannot solve our problems with the same level of thinking that created them”, two questions come to mind: first, ‘how can people be inspired to attempt to change their way of thinking?’, and then, secondly, if they become inspired to change, ‘how will they learn to act and behave under a completely different way of thinking?’. Answers will only be found within Education, the only path for guiding our society in a new direction.

1.2. Study Overview

Education systems have traditionally been a reflection of societal aspirations and challenges, with a moral responsibility to build leaders, create change-makers and entrepreneurs capable of overcoming the challenges of each historic age

(Lozano, Lukman, Lozano, Huisingsh, & Lambrechts, 2013) (Weybrecht, 2017). And in the last few decades, many crises related to environmental degradation or scarcity, political and institutional corruption or ethics code violations, poverty, hunger, and a growth in inequality have made society aware of a fundamental change in global challenges as well as in the path to achieving societal goals, which lays under the paradigm of development (Edewor, 2014) (Jackson, 2009). This critical shift in the challenges and aspirations of society brings the need to prepare leaders with a whole new set of skills, knowledge, attitude and, overall, values and principles to drive their decisions and succeed in the process of shaping a future different from the present or past (Amador, Martinho, Bacelar-Nicolau, Caeiro, & Oliveira, 2015). The need to generate new outcomes through the learning process generates an increasing call for action toward an education system, particularly in higher education, for them to disseminate new curricula, learning methods, research and outreach, promoting innovative capabilities for present and future leaders (Lozano, Lukman, Lozano, Huisingsh, & Lambrechts, 2013).

Among the different education levels, Higher Education plays a critical role based on its “unique academic freedom and the critical mass and diversity of skills to develop new ideas, to comment on society and its challenges, and to engage in bold experimentation in sustainable living” (Cortese, 2003). Higher education institutions should, therefore, assume a leadership position to promote educational transformation, encouraging new approaches for learning, practice, and changing relations with the local and global communities around them (Cortese, 2003) (Amador, Martinho, Bacelar-Nicolau, Caeiro, & Oliveira, 2015).

Over the past few decades, society and educational organisations have advocated for changes, starting the transformational journey through assemblies, charters, declarations, associations, agreements and reports (Lozano, Lukman, Lozano, Huisingsh, & Lambrechts, 2013), amplifying attention and efforts toward the new global challenge and its pressure on education roles, recently assembled through 2030 Agenda, and its 17 Sustainable Development Goals (SDG) (Weybrecht, 2017). As a reflection of the consistent progress in the understanding of present and future challenges for society, there has been an increasing number of businesses and higher

education institutions engaged in promoting changes in their model, chasing the critical transformation required by society (Godemann, Herzig, Moon, & Powell, 2011).

From the business perspective, concepts such as Corporate Social Responsibility (CSR) and Responsible Leadership have gained increasing emphasis throughout the years, intersecting values and principles discussed under the notion of Sustainable Development (SD). The creation of The United Nations Global Compact (UNGC) initiative by some corporate leaders and the United Nations (UN) at the beginning of the century represented an important movement that showed the growing concern over corporate responsibilities and, since its launch, has promoted a significant advance in the engagement of businesses worldwide with the cause. As well as the calls for action that were made to business, educational institutions were also being requested to promote changes, to respond to new requests from society and from businesses as well, both with increasing demand for a new type of leadership, being more socially and environmentally responsible and capable of meeting the Sustainable Development challenges.

The Principles of Responsible Management Education (PRME) initiative is an example of a growing educational community that has shown increasing adherence to and consistent progress on the integration of sustainable development into school systems. Launched in 2007 by the UNGC the PRME was created with the aim of developing a platform for global engagement, to transform business schools and management-related higher education organisations, enabling them to shape future generations of sustainable and globally responsible professionals, managers, and leaders (UNPRME, s.d.). The PRME is a principle-based framework structured on six principles - purpose, values, method, research, partnership, and dialogue – proposing a formal commitment by the school to embrace a responsible education system for sustainable development, and to share the progress of the school with the PRME Community through a Sharing Information Process (SIP) every 24 months. The PRME framework functions as a general guide to shape the boundaries in which business schools operate toward the commitment implied in each principle. Ten years after its launch, the PRME community had managed to get over 650 active signatories in 2017, demonstrating a significant representation of schools worldwide (Haertle, Parkes, Murray, & Haynes, 2017). The community adherence progress shows the increasing

interest of business schools to embrace the journey and, despite the extent to which each school is embedded in the subject, the evidence is that the principles have been a successful initiative and encouragement mechanism based on consistent progress shared by signatories over time (Godemann, Herzig, Moon, & Powell, 2011).

An important change in the global debate was the launch of the 2030 Agenda by the UN in 2015, which translates the challenges of SD into common and global language. This global plan, with 17 goals reflecting the complexity of SD, presents an important opportunity to align efforts from all players in society, including governments, civil society organisations, corporations, and educational institutions. The platform of the 2030 Agenda suggests a central axis to ally the efforts of society and reinforce the educational role in mobilising and promoting change toward SD (Weybrecht, 2017). Looking at the past few decades, it represents the most organised call to action, assembling all aspects and complexities intrinsic to SD up to this point in the timeline, organising the broad extent to which society should play its role to with the aim of a fairer, healthier humanity.

The role of Education is particularly emphasised in goal #4, named “Quality Education”, and having one of its targets defined as: “By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and the contribution of culture to sustainable development” (United Nations General Assembly, 2015). This definition itself clearly sets the wide scope education plays in the role of promoting sustainable development, meaning direct interaction across all other targets defined by the 2030 Agenda.

Without the commitment of education toward a new set of skills and knowledge – overall values, how could all other SD challenges be understood and sought by society if people maintain the traditional mentality, skills and attitudes rooted in the age of production competition, consumption aspiration, and illusions of prosperity? The learning system is the only pathway to make society aware of and sensitive to the aspects of sustainable development, and to prepare society to aim for

sustainable development, accepting and embracing the complexity of its multidimensional facet.

The optimistic side of this reflection comes from the consistent progress of an increasing number of educational institutions, embracing change to shape a more responsible leadership toward SD. However, even recognizing this consistent progress, there is still a huge opportunity to increase the adherence of schools worldwide as well as to minimise many of the barriers or levels of resistance encountered on their journeys. So, this study aims to answer what constitutes the type of practice represented in the most frequent and significant initiatives encountered in schools that have advanced education for sustainable development in all aspects of learning experiences, research, and school relations. The proposal then, is to diagnose and organize these practices, creating a suggested guide or pathway toward a transformational change in educational model, so it can inspire and influence other higher educational institutions to follow a similar path when seeking and bringing about change. Based on qualitative research using documental analysis methodology, the study applied an analytical model to investigate 18 business schools from the PRME Champions Group through their SIP reports. The analytical model represents a framework in which the results represent a list of 53 initiatives organised into 18 categories under the PRME structure, each initiative is then presented with the frequency it appears among all the schools analysed. Complementing the result, there is also a multi-dimensional version of the framework suggesting another way to comprehend and approach its content.

This study also intends to contribute to previous, similar studies, such as the evaluation made by Godmann (2010) of the progress and the opportunities encountered in SIPs during the evolution of the PRME community, as well as the frameworks or models developed by Weybrecht (2007), Setó-Pamies (2016) or Rusinko (2010). It also intends to contribute to the PRME community, as well as non-signatory HEI and schools from all different levels of education, and learning ages, so it can serve as a practical tool to inspire and mobilise efforts toward integrating education on and for SD throughout the global educational system.

The study is structured in five main topics, with related sub-topics. It starts with the introductory part (1), which includes the reflection mentioned in the previous

sub-topic, the study overview cited in this sub-topic, then the contextualization in which the theme stands, and other introductory topics. The second main topic (2) refers to the literature review, also divided into different sub-topics. The third topic (3) refers to the methodology applied in the study and is divided into five sub-topics that present the method used, how the analysis was built up and the boundaries of the data explored. The fourth part (4) explores the results, divided into sub-topics according to the organisation proposed to present them. Then the fifth part (5) presents an overall conclusion on the work, which includes the main findings, and finally considers its limitations and suggests possible further and deeper analysis. At the end, there is the list of references.

1.3. Contextualization

1.3.1. Changes in the Idea of Development

During the last few decades, an increasing number of assemblies, conferences and declarations promoted by United Nations have enlightened society and alerted it to numerous social and environmental failures in the name of “development”, a term that has been primarily - or exclusively - understood as economic growth and considered a central force, putting nations through a frenetic production and profit race during the post war period (Lozano, Lukman, Lozano, Huisinigh, & Lambrechts, 2013) (Jackson, 2009).

An important milestone in the trajectory of this global debate over development was the declaration of Brundtland in 1987, with the “Our Common Future” report, which detailed assorted development failures involving hunger, poverty, social inequality, injustice, population growth without well-being for all, vulnerability, and environmental degradation in many different and critical aspects. The relevance of this event was not only for having raised the level of understanding on the collateral and negative results of the “development” process, but overall by officially redefining the notion of “development” formally stating for the first time the concept of “Sustainable Development”, extending the comprehension of development through the integration of social and environmental aspects. According to the Brundtland declaration, the concept of “Sustainable Development” was defined as being “development that meets the needs of the present without compromising the ability of future generations to meet

their own needs” and this definition became the foundation of values and principles disseminated through new guidance and orientation, to influence the actions and decision making of governments, private institutions, organisations, enterprises and civil society toward changes for a more sustainable humanity (United Nations General Assembly, 1987).

Considering the historic timeline of a continuous improvement process, to better understand the concept of development during the second half of the twentieth century, the Stockholm conference (United Nations General Conference, 1972), in 1972, was an important precedent of Brundtland, which established universal principles and guidelines that introduced environmental protection and human rights as urgent matters to attract governmental’ and institutional attention and stimulate plans of action. After Brundtland, social and environmental issues gained even more space and voice in global arena with the advance and propagation of Sustainable Development values throughout innumerable events, such as Rio92 (The United Nations Conference on Environment and Development, 1992), the Climate Change Conferences initiated in 1994 (EESI, n.d.), the Millennium Summit (United Nations General Assembly Resolution, 2000), Rio+10 (United Nations Summit, 2002), and Rio+20 (United Nations, 2012).

Adding to this context, during the nineties, a group of economists created the Human Development Index (HDI) as a combination of life expectancy, education and per capita income, defending the need “to shift the focus of development economics from national income accounting to more people-centred policies” (Edewor, 2014). Since its creation, and despite all of its critics, and the barriers that were encountered within societies, the HDI has gained relevance over the years, becoming an important guide for measuring development instead of the pure and traditional per capita index.

Thus, with the passing of time, the idea of development was being re-signified with new concepts and different directions, emphasising environment, and human conditions besides economic growth. And this shift of conception directly mobilised society to also understand a new set of global challenges to be embraced by all.

1.3.2. New challenges for the twenty first century

In September of 2015, as a reflection of the continuous improvement process of redefining concepts, challenges, aspects and values of development, the United Nations Development Summit declared the 2030 Agenda, with the 17 universal SDG that must drive new actions, attitudes and decision making in order for society to be capable of overcoming the challenges in building a fairer and healthier humanity for all. The 2030 Agenda then, resumes the trajectory of the global debate milestones in the evolution of a more holistic comprehension of development, its features, and challenges, as well as the increasing relevance that has been given to education in order to change the direction of society (United Nations General Assembly, 2015).

Among the 17 goals defined, Education is featured the 4th of them, named “Quality Education”, and having its 4.7 target defined as: “By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and the contribution of culture to sustainable development” (United Nations General Assembly, 2015). The question is: without the commitment of education toward a new set of skills and knowledge – overall values, how could all other Sustainable Development challenges be understood and sought by society if people maintain the traditional mentality, skills and attitudes rooted in the age of competitive production, consumption aspiration, and illusions of prosperity? The learning system is the only way to make society aware *of* and sensitive *to* sustainable development aspects, and to prepare society to aim for sustainable development.

The spectrum of the 2030 Agenda and its 17 goals are summarised through the image below, and can be further explored through the United Nations platform of Sustainable Development at “<https://sustainabledevelopment.un.org/sdgs>”:



Figure 1 - The Sustainable Development Goals

Source: (Carroll, A three-dimensional conceptual model of corporate performance, 1979) (United Nations Department of Public Information, n.d.)

1.3.3. The growing emphasis on Corporate Social Responsibility

During the last three decades of the twentieth century, whilst awareness of the symptoms of an unfair and unhealthy society and a degraded environment was rising throughout global debate, the concept of Corporate Social Responsibility emerged into the business arena (Carroll, The pyramid of corporate social responsibility: toward the moral management of organizational stakeholders, 1991). According to Carroll's text "The Pyramid of corporate social responsibility" (1991), the increasing interest in the subject reflected social groups that advocated for a broader notion of corporate responsibility to influence the creation of new governmental bodies that could officially recognise environment, employees, and customers as legitimate stakeholders of business. From a business perspective, this movement created new pressures for companies to balance their traditional economic commitment with a broader range of commitments, now involving legal and ethical rights from a larger prism of stakeholders. Firms were then challenged to start reconciling their economic orientation toward a more social position, considering not only legal and economic responsibilities, but ethical and philanthropic responsibilities as well.

As a proposal to organise these concepts, Carroll structured "The Hierarchy of Corporate Social Responsibility" with a four-layer spectrum of social responsibility starting with the fundamental economic layer, followed by legal, ethical, and philanthropic layers (Figure 2).



SOURCE: Archie B. Carroll, 'The Pyramid of Corporate Social Responsibility: Toward the Moral Management of Organizational Stakeholders,' *Business Horizons*, July-August, 1991.

Figure 2 - The Hierarchy of Corporate Social Responsibility

Source: (Carroll, The pyramid of corporate social responsibility: toward the moral management of organizational stakeholders, 1991)

Following Carroll's theory, profit was the primary incentive to start a business, then the term "maximising profit" became the most important managerial responsibility concept considered in organisations. Considering that, without profit, companies do not exist, and that economic layer is then the foundation of all other responsibilities. The next layer, Legal Responsibility, relates to the framework of the law and the official regulations within which the firm operates. This has an intrinsic relation with the economic layer, as compliance with the law is a condition for the firm to maintain its business operations. This also has a fundamental relation to the next layer, ethical, as legal responsibility continuously codifies ethical concepts created by society on its development path to maturity.

The ethical layer represents expectations from society of business activities and practices not regulated by law, but desired as a minimum commitment to stakeholders. It reflects societal standards of what is understood as fair, just, and protects the respect and moral standing of stakeholders. The last layer, philanthropic responsibility, refers to additional commitments a firm might undertake in order to placate stakeholders. These commitments are not related to justice and moral concepts, such as in the ethical layer, but to good corporate citizenship within society. In case a firm does not work with these layers, society will not consider it as unfair or immoral as could be the case in the previous layer. "In summary, the total corporate social responsibility of business entails the simultaneous fulfilment of the economic, legal, ethical, and philanthropic responsibilities of the firm (Carroll, The pyramid of corporate social responsibility: toward the moral management of organizational stakeholders, 1991).

Other concepts mentioned in the Carroll study and helpful to managers and leaders in understanding and developing CSR in their companies are related to Stakeholder Management and the ethical approach of managers, considering notions of amoral, immoral or moral orientations. Stakeholder management is a relevant concept to consider from a business perspective because as it gains attention and relevance, it also starts to share the attentions that was primarily focused on the interests of shareholders, and mainly related to economic aspects of the business.

It is Important to mention that the circumstances related to legal structures or ethical concepts have different levels of maturity, and approaches throughout the world, meaning that pressure on corporations tends to be much less, or even non-existent, in developing or underdeveloped countries, where public institutions and educational systems show a lack of maturity and have significantly less resources to establish strong influence over society. From the perspective of a global corporation, different regions offer different pressures on their performance and decision-making responsibilities, which means that in less developed regions the chances of having corporations performing at lower levels of social responsibility are greater. These uneven circumstances in different regions, in which local or worldwide companies operate, turned out to be a great opportunity for establishing global norms or universal standards to influence corporations in the move toward more responsible performance, with a similar approach worldwide.

So then, the advance of the corporate responsibility movement gained new strengths in 2000 with the founding of the Global Compact (GC), created by 44 visionary leaders and the UN, a network platform with a principles-based framework, guidance and best practices, action proposals, networking events, and incentives to increase collaboration among participants. Based on 10 defined principles to sustain the framework (Figure 4), the GC embraced the challenge of setting universal values and corporate priorities based on human rights and environmental practices (UN Global Compact, 2015).

Human Rights

Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and

Principle 2: make sure that they are not complicit in human rights abuses.

Labour

Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;

Principle 4: the elimination of all forms of forced and compulsory labour;

Principle 5: the effective abolition of child labour; and

Principle 6: the elimination of discrimination in respect of employment and occupation.

Environment

Principle 7: Businesses should support a precautionary approach to environmental challenges;

Principle 8: undertake initiatives to promote greater environmental responsibility; and

Principle 9: encourage the development and diffusion of environmentally friendly technologies.

Anti-Corruption

Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

Figure 3 - United Nations Global Compact Principles
Source: (UN Global Compact, n.d.)

At the beginning of the century, UN Global Compact supported the maturity and practices of the corporate sustainability movement, understanding “corporate sustainability” as being “a company’s delivery of long-term value in financial, environmental, social and ethical terms” (UN Global Compact, 2015).

The UN GC has seen a consistent increase in the admission of companies over the years, starting with 44 leaders at its launch, in 2000, and reaching more than 8,000 businesses and more than 4,400 non-business participants by 2015 (UN Global Compact, 2015). It shows an increasing interest and engagement from businesses to embed more responsible management, considering social and environmental dimensions – and pressure. As corporations were required to drive efforts toward more responsible leadership, capable of integrating sustainable factors into the decision-making process, conflicts and barriers to progress on this trajectory seemed to be hidden behind traditional models, processes, methods, and also attitudes, behaviours, knowledge and a lack of awareness, intrinsic to the character of “old-fashioned”

leadership – and citizenship, which were constructed mainly to prevail in the past age of industrial and economic growth competitiveness (Jackson, 2009).

During decades of the global debate, when the concepts of development were re-signified and new challenges for the century were defined and disseminated, many calls for action were made for the role of education, and the same happened with the corporations. But as corporations started to move forward integrating sustainable values into their strategic decision-making processes, pressures on education have increased even more as the existing leadership model seemed to be unprepared to manage higher complexity, uncertain context and the multidimensional facets related to sustainability which are embedded into the concept of corporate social responsibility. So, the growing emphasis on corporate social responsibility in the business arena has direct influence on discussions and debate at business schools, especially in terms of setting general directions to transform curricula, research, and learning experience methodologies to help shape a new form of leadership.

1.4. The Role of Education

Looking back on the last few decades, the role of education was always mentioned as relevant as the debate on development progressed. The Stockholm report (United Nations General Conference, 1972) referred to this when it recommended the preparation of the existing education systems to include environmental education with an interdisciplinary approach, both in and out of school, encompassing all levels of education (United Nations General Conference, 1972). The report also recommended exchanging information across educational systems and specialist groups, sharing teaching practices and knowledge; the training of professional workers, including teachers of various disciplines and at various levels; the development of new material and methods to provide environmental education; and other recommendations to be promoted across the education system in order to prepare individuals and institutions to integrate environmental factors into their routines. With a similar approach and appeal for change, the Brundtland declaration mentioned that “the changes in attitudes, in social values, and in the aspirations that the report urges will depend on vast campaigns of education, debate, and public participation” (United Nations General Assembly, 1987).

“Most people base their understanding of environmental processes and development on traditional beliefs or on information provided by a conventional education. Many thus, remain ignorant about ways in which they could improve traditional production practices and better protect the natural resource base. Education should therefore provide comprehensive knowledge, encompassing and cutting across the social and natural sciences and the humanities, thus, providing insights on the interaction between natural and human resources, between development and environment”. (United Nations General Assembly, 1987).

The appeal made to the educational institutions in the report was “to play a crucial part in putting the world onto paths toward sustainable development, in laying the groundwork for our common future” (United Nations General Assembly, 1987), mentioning the crucial point of teacher training, and the inclusion of new knowledge throughout different disciplines at all levels of education.

Other events along the continuous improvement debate on sustainable development, environmental or social challenges also referred to education as being a crucial tool for promoting change in society. As a reflection of this global debate, and the increasing call for action to educational systems, higher educational institutions (HEI) also started to debate and discuss their role and the relevant initiatives that would be necessary to integrate concepts of Sustainable Development into their systems. Consequently, parallel to the global debate and pressure on the educational role, HEI started to promote many assemblies, conferences, declarations, partnerships and associations, raising their interest and engagement to advance the integration of SD concepts into their learning model (Lozano, Lukman, Lozano, Huisinigh, & Lambrechts, 2013). The main initiatives discussed at relevant HEI events related to SD integration involved themes of curricula, research, operations, outreach and collaboration, trans-disciplinarity, college collaboration, SD through campus experiences, educate the educators, assessment and reporting, and institutional frameworks (Lozano, Lukman, Lozano, Huisinigh, & Lambrechts, 2013). This wide range of initiatives, discussed worldwide, started to become the general influence for HEI to move SD forward.

At the turn of the millennium, United Nations and world leaders launched the Millennium Development Goals (MDGs), 8 goals to be achieved by 2015, with the aim of addressing challenges related to poverty, primary education, gender equality, child mortality, maternal health, diseases, environmental sustainability, and partnerships for development. The MDGs represented the first universal agenda proposed by UN and global leaders, translating the challenges and threats discussed

in recent years into common language in order to align global efforts to face and combat them (United Nations General Assembly Resolution, 2000). And they were referred to in other events at the beginning of this century, such as The World Summit, with “The Future We Want” declaration (United Nations Summit, 2002), the UN conference on Sustainable Development (United Nations, 2012) and, more recently, were reassigned in the assembly of the 2030 Agenda (United Nations General Assembly, 2015). The 17 Sustainable Development Goals reflect, in many aspects, the maturity of a continuous improvement process of the awareness and engagement of society toward the drivers and subjects discussed and declared throughout the events over time. And education was continuously referenced as a crucial path to help change society.

Adding more context to this trajectory, the Decade of Education for Sustainable Development (DESD) was another significant program coordinated by the United Nations Educational, Scientific and Cultural Organisation (UNESCO), with efforts to disseminate and promote transformational change toward education for sustainable development (ESD). According to the UNESCO, ESD is a key enabler for the transformation of society and to help people develop new skills, values and behaviours, as well as expanding their knowledge in line with the new challenges faced by the generations of both today and tomorrow (UNESCO, n.d.).

“The UN Decade of Education for Sustainable Development (2005-2014) sought to mobilize the educational resources of the world to help create a more sustainable future. Many paths to sustainability (e.g., sustainable agriculture and forestry, research and technology transfer, finance, sustainable production and consumption) exist and are mentioned in the 40 chapters of Agenda 21, the official document of the 1992 Earth Summit. Education is one of these paths. Education alone cannot achieve a more sustainable future; however, without education and learning for sustainable development, we will not be able to reach that goal.” (UNESCO, n.d.)

In summary, as a reflection of an increasing awareness of the role of education and the imperative change needed, educational institutions were getting involved more and more as time passed, advancing initiatives through innovation and redesign in their curricula, research, operations, outreach and collaboration, trans-disciplinarity, university collaboration and all other themes related to the process of integrating sustainability into the educational system, previously mentioned in Lozano’s study (Lozano, Lukman, Lozano, Huisinigh, & Lambrechts, 2013). However, as with any other emerging transformational journey, there is no clear “recipe” or

“manual” to guide educational institutions, to help them prevail along the route, as mentioned by Goldemen (Godemann, Herzig, Moon, & Powell, 2011). While the UN have assembled the SDG as a well-detailed and unanimously accepted global framework with goals and targets to orient and align universal efforts toward sustainable development, a similarly detailed guide or framework focused on educational systems has not yet been structured and unanimously accepted by HEIs (Storey, Killian, & O’Regan, 2017).

1.5. PRME as a Platform to Promote Change

In 2007, years after UN GC had initiated its business movement community, it created the Principles of Responsible Management Education (PRME), a global call to action with a similar dynamic to the GC network platform, also with a principles-based framework but targeting schools instead of businesses. Based on the belief that traditional educational approaches have failed to prepare graduates to respond to the demands of more responsible leadership and prevail over sustainable challenges, the PRME ambition has been to engage management-related academic institutions in the incorporation of responsible leadership principles and sustainability values into school activities and teaching (UNGC, 2017).

The mission of PRME is to transform business and management education, research and thought leadership globally, while promoting awareness about Sustainable Development Goals, and developing the responsible business leaders of tomorrow (UN Global Compact, n.d.).

Founded on the 6 principles presented below, the PRME became a platform to guide HEIs practices and promote sharing experiences among them, expanding dialogue and learning on responsible management education, encourage the development of tools and research on responsible management, as well as disseminate the development of teaching methods for sustainable development (UNPRME, n.d.).



Figure 4 - Principles of Responsible Management Education
Source: (UNPRME, s.d.)



Figure 5 - PRME Community Growth by year and Representation by Region
Source: (UNPRME, 2017)

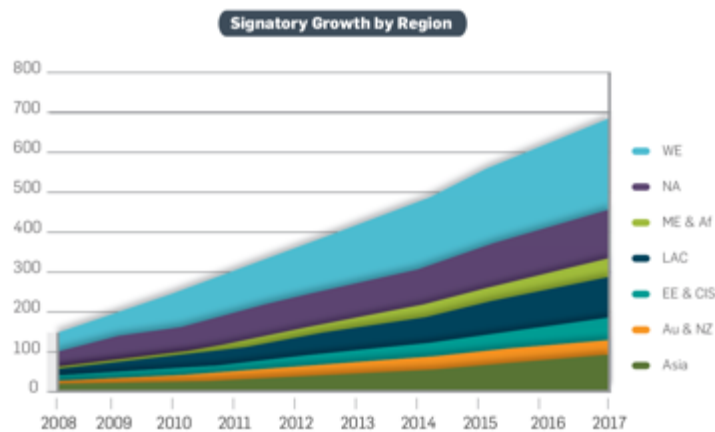


Figure 6 - PRME Community Growth by Region in quantity
Source: (UNPRME, 2017)

In order to promote and support the implementation of PRME, the community organised collaborative initiatives such as Working Groups that focus on specific topics under the PRME Agenda (for example, gender equality, poverty, and anticorruption), and regional chapters that focus on approximating and adapting PRME principles within different regional and local contexts and languages, with independent activities being placed locally. There is also the initiative of the Champions Group, launched in 2013 with a two-year pilot program aiming to create an active group of well engaged and experienced signatories that could voluntarily commit to working proactively and collaboratively to develop and promote activities addressing common shared barriers to making responsible management education a reality (UNPRME, n.d.).

Mission

The mission of the PRME Champions group is to contribute to **thought and action** leadership on responsible management education in the context of the United Nations sustainable development agenda.

In so doing, PRME Champions commit to:

- ❶ **Work collaboratively** to achieve higher levels of performance in transforming business and management education in five key areas: curricula, research, educational frameworks, sustainability-based partnerships, and thought leadership.
- ❷ **Serve the broader PRME community** through active engagement with existing PRME Chapters, PRME Working Groups, Global Compact LEAD, and other global opportunities, as well as to support broader and deeper implementation of sustainability principles in the institutional context of the PRME initiative.
- ❸ **Contribute to broader UN goals and issues**, particularly helping to realize the Sustainable Development Goals.

Being a PRME Champion

Participation in the Champions group enables highly engaged PRME signatories to:

- ❶ **Be recognised as a thought and/or action leader** in the responsible management community: Help to develop and implement "game changing" projects and serve as a sounding board for PRME, Global Compact, and the UN on timely issues, such as the SDGs.
- ❷ **Collaborate with leading HEIs and Global Compact companies** on projects that are of value to the PRME community by contributing to the flagship project on the SDGs, and by initiating, engaging with, or leading a PRME Champions sub-project.
- ❸ **Be recognised as a PRME Ambassador**: Engage and support local businesses and peer institutions, including by playing a visible role in PRME Chapters, at PRME Regional Meetings, and/or with Global Compact Local Networks. Serve as a role model for the PRME community.
- ❹ **Receive exclusive access** to UN Global Compact meetings: Hear directly from, and interact with companies and their representatives on priority sustainability-related issues.
- ❺ **Be eligible to serve on the PRME Advisory Committee**: This permanent twenty-member governance body gives a stronger voice to the participant schools of PRME, with a basis for providing strategic advice to both the PRME Steering Committee and the PRME Secretariat.
- ❻ **Receive preferential access for students to UN Global Compact opportunities**, including internships and volunteer opportunities with the PRME Secretariat and the UN Global Compact, as well as PRME related student competitions.

Figure 7 - Champions Group Mission and Commitments

Source: (UNPRME, s.d.)

With the recent launch of the 2030 Agenda and its SDG, the PRME community has driven its attention and efforts to not only keep supporting incentives and programs to advance the quality and quantity of signatory performance and adherence, but also to create communications aiming to disseminate the relevance of SDG across community and stakeholders, as well as creating a mechanism for implementing and measuring how signatories have advanced with SDG in their school activities (UNPRME, s.d.).

The PRME platform became a relevant mechanism for the engagement of HEI around the world, toward the transformational change expected by organisations,

and society as a whole. However, as previously mentioned, there have been significant opportunities in terms of increasing the adherence of schools to the movement and in terms of the extent to which schools are effectively advancing the transformational change in their models.

This research project is specifically attempting to create a detailed list of initiatives that – based on the PRME guidelines – have been put into practice by PRME signatories, so that it can instigate, and also serve as a practical reference for other schools on the path to their transformational journey.

In order to proceed, the author explored different literature using a dense analytical model to investigate and diagnose practices reported in several formal documents, this was done to help understand what types of barriers and opportunities exist facing the promotion of change, as well as what kind of existing models and frameworks have guided and supported schools when advancing change. All of the literature reviewed will be explored and explained in the next topic, following the last two sections of the introduction.

1.5.1. PRME Critical Alliances with Accreditation Entities

Accreditation bodies function as a useful instrument, providing credibility and reputational value to schools. Entities such as AACSB, AMBA and EFMD (EQUIS) are traditional, international accreditation bodies for business schools. Once accredited, the school gains the confidence of students for the high-quality standards being offered throughout its educational program (Cooper, Parkes, & Blewitt, 2014). So, many schools have great interest in acquiring or maintaining accreditation, dedicating a great amount of effort – and resources – to guarantee that they receive them. When new norms or standards are established over time, schools then try to adapt their internal areas and procedures to meet the new requirements, in order to guarantee their accreditation.

According to Cooper (Cooper, Parkes, & Blewitt, 2014), accreditation is “an important ‘normative mechanism’ that can lead to institutional change”, and the number of schools accredited has grown consistently over the years, fostering the influence of

their standards across schools worldwide. Considering that traditional accreditation bodies have been engaged in the global agenda related to the advance of social responsibility and sustainability and many participate in the PRME Steering Committee (UNPRME, s.d.), they have considered more criteria related to ethics, social and environmental responsibility in their standard protocols (Cooper, Parkes, & Blewitt, 2014).

A relevant example of this movement was observed in changes promoted by the EFMD EQUIS Assessment Criteria format in 2013, as posted through the EFMD platform in March of 2013 (Wood, 2013). According to the changes announced for the EQUIS STANDARDS & CRITERIA 2013 Report (EMFD/EQUIS, 2013) three new subjects related to Internationalisation, Corporate Connections and Ethics, Responsibility & Sustainability were transversally incorporated across most of the assessment dimensions (Context, Governance and Strategy; Programs; Students; Faculty; Executive Education; Resources and Administration). This, relevant, change - which occurred in the overall criteria assessment of a traditional and international accreditation entity (EFMD EQUIS), was important evidence of the growing attention being given to the role of educational institutions in contributing to the resolution of the social and environmental challenges of current and future generations:

“A major originality of the EQUIS approach is the inclusion of three transversal chapters dealing specifically with Internationalisation, Corporate Connections and Ethics, Responsibility & Sustainability, reflecting the importance that EQUIS attaches to these dimensions. (...) The expanded coverage of Ethics, Responsibility & Sustainability introduced in this edition of the EQUIS Standards & Criteria reflects the need of business schools to contribute to the resolution of societal challenges and to act as ‘good citizens’ in the environment they operate in. Each of the other chapters contain criteria relating to these three dimensions, but the purpose of the three separate chapters is to allow a focused overview of the School’s achievements in these areas and to address the policy issues raised.” (EMFD/EQUIS, 2013).

Another international and traditional accreditation entity, the AACSB, has also contemplated the criteria referring to corporate social responsibility in the eligibility and standards procedures applied to school assessments:

“The school must demonstrate a commitment to address, engage, and respond to current and emerging corporate social responsibility issues (e.g., diversity, sustainable development, environmental sustainability, and globalization of economic activity across cultures) through its policies, procedures, curricula, research, and/or outreach activities. [COMMITMENT TO CORPORATE AND SOCIAL RESPONSIBILITY]” (AACSB, 2013).

Consequently, the proximity of the accreditation bodies to PRME and the Sustainable Development global agenda means favourable conditions to effectively advance change across school models toward the integration of the concepts and principles of responsible education and sustainability. However, as mentioned earlier by Cooper in his article (Cooper, Parkes, & Blewitt, 2014), even though it plays an important part, the influence of accreditation itself is not enough to completely ensure change. According to his research, institutional interests should also demonstrate engagement toward change, so as to essentially create favourable conditions and drive change across the school community overall.

In a way, based on reflection on Cooper's research, while accreditations have included more criteria related to social responsibility and sustainability and consequently influenced schools regarding change, on the other hand, the PRME initiative has played an essential role of engaging and preparing schools to meet the demands that arise from the new norms coming from accreditation bodies, besides involving a broader range of requirements within and beyond school boundaries. So, the alliances established among them suggest potential and favourable conditions to move educational changes forward (Cooper, Parkes, & Blewitt, 2014).

PRME Steering Committee:

- UN Global Compact
- AACSB International (The Association to Advance Collegiate Schools of Business)
- European Foundation for Management Development (EFMD)
- Association of MBAs (AMBA)
- Central and East European Management Development Association (CEEMAN)
- Association of African Business Schools (AABS)
- Latin American Council of Management Schools (CLADEA)
- Accreditation Council for Business Schools and Programs (ACBSP)
- The Russian Association of Business Education (RABE)
- The Academy of Business in Society (ABIS)
- Globally Responsible Leadership Initiative (GRLI)

1.6. Timeline Overview

To provide an illustrative summary of the main, global debate milestones related to changes in the idea of development over the past five decades, the author

assembled a broad range of information in the following figure (Figure 9). The timeline overview helps to set the scene in which the term Sustainable Development arises, as well as the moment in which the GC and PRME were created, reflecting the context of intense pressures on business to become more socially and environmentally responsible, as well as on educational institutions, to prepare society for, and guide society toward, a new set of challenges expressed through the 2030 Agenda.

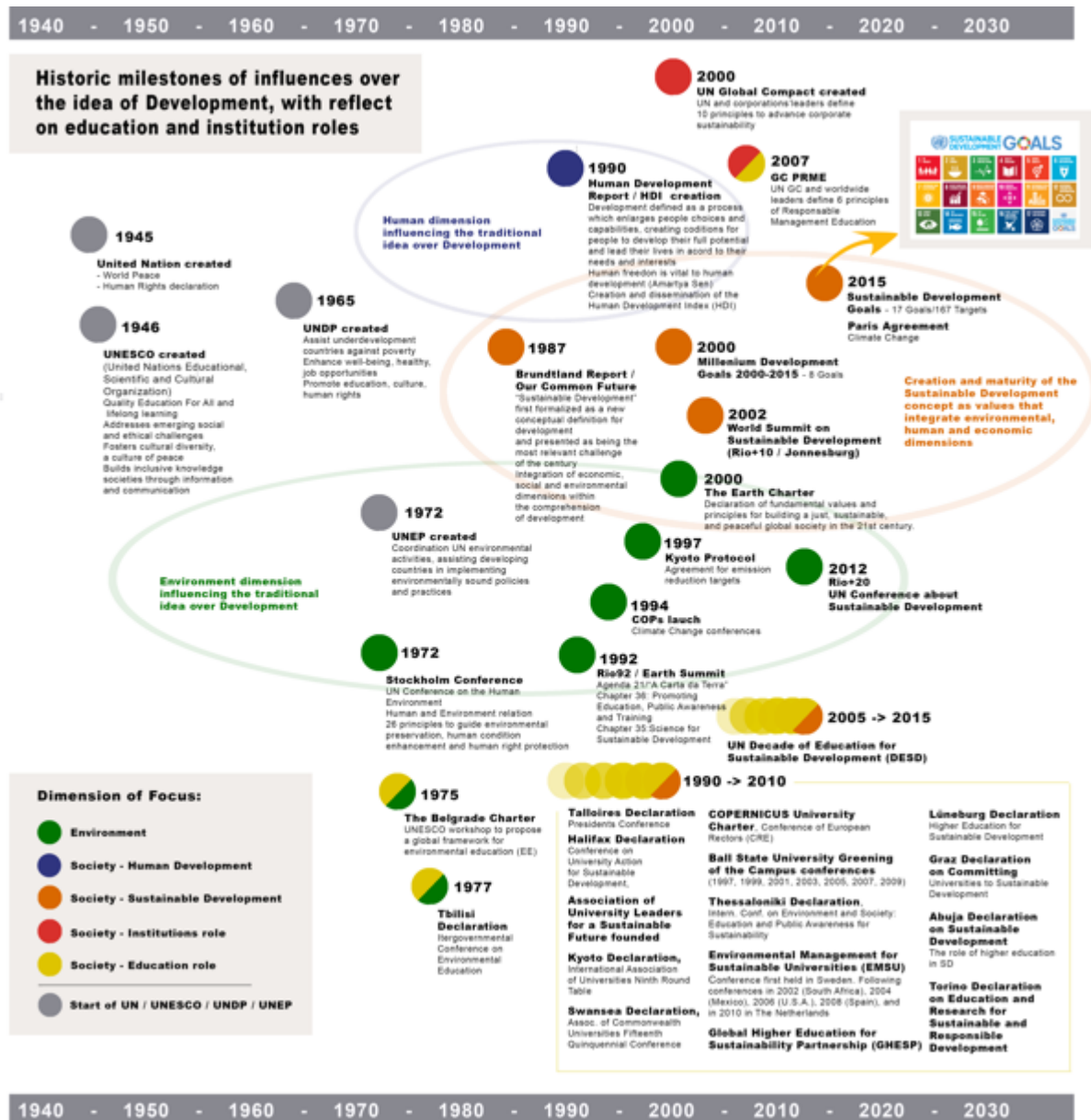


Figure 8 - Global debate historic milestones related to the maturity of the Sustainable Development debate

Source: (Lozano, Lukman, Lozano, Huisinigh, & Lambrechts, 2013)

Note: Author's consolidation of declarations, charters, summits and reports from the last few decades, with the contribution of data encountered in Lozano's research (2013).

2. Literature Review

Despite the transformational progress evidenced through research findings, the pace at which educational institutions have fostered change seems to be slower than the pace at which the new challenges have threatened and warned global civilization (Lozano, Lukman, Lozano, Huisingsh, & Lambrechts, 2013). Many literary works have noted different kinds of barriers related to the speed at which educational institutions, particularly higher education schools, promote change in their learning model toward sustainable development. According to Weybrecht (2017), barriers can be related to the general nature of the term “sustainability”, in which schools have the flexibility to adopt a general or superficial approach, failing to extend their comprehension and interaction with the deep-rooted complexity intrinsic to the dimensions of “sustainability”. Besides the flexibility aspect, Weybrecht (2017) also illustrates the opportunity to better define different terms, such as ethics, CSR, responsible management and sustainability, and their intrinsic relation to businesses, instead of being understood as peripheral factors.

“Progress is being made but is not proving simple because of the underlying culture in and surrounding business schools, how they operate, what they teach, how they teach it, who they teach it to and what is expected of them. It isn't just the global community that doesn't necessarily recognize the important role that management education could play in moving the SDGs forward; perhaps management education itself does not fully recognize its role” (Weybrecht, 2017).

For Lozano (2013), some of the barriers to embracing change lay in the lack of awareness on the idea of sustainable development, and on the lack of relevance given to the integration of new concepts, methods and principles of sustainable development within and across courses or disciplines. Other barriers mentioned by Lozano (2013) are teaching insecurity, overcrowded curricula, lack of support, stakeholder engagement, restriction on the organisational structure, and the uncertainty of the efforts required to infuse sustainable development across the system. Lozano also mentions barriers found in the heritage of the traditional education model, which comes from the period of science and the industrial revolution, during which different fields of knowledge were separated into isolated disciplines following a process of overspecialisation. This traditional model appears as an unfavourable structure to promote multidimensional awareness and the leadership sensitive

condition, both of which are necessary to help embrace the complexity of sustainable development challenges.

Another contribution from literature comes from Amador (2015), who argues that higher education has focused much more effort on promoting education *on* sustainable development than *for* sustainable development, failing to create participatory and metacognitive engagement, and to provide philosophical background, all necessary conditions for the development of critical thoughts, the capacity to problematise dialectical relations or complex dilemmas, and produce forms of consciousness that recognise the importance of sustainable development for society. Amador also illustrates the need for improving forms of evaluation to measure the contributions of schools to teaching from a sustainable development perspective, instead of measurement models focused on campus operations or campus sustainability, which have been more frequently found among higher education institutions. To complement, Alcatraz (2010) recognises all the efforts promoted by higher educational institutions to help generate more responsible leadership toward sustainable development but believes that many of the efforts involve only “beautiful words”, lacking the essential elements to address real changes. Based on those findings, and despite an increasing level of attention and effort to explore the subject, higher education institutions have resisted or struggled to embrace and advance sustainable development throughout their system, due to the different natures, and levels of barriers – and interests.

Considering the PRME community as a reference of schools engaged in advancing change, a study made by Godemann (Godemann, Herzig, Moon, & Powell, 2011) of the Sharing Information Progress reports (SIPs) of over 100 signatories in 2011 showed not only consistent advances, but also relevant opportunities for schools through their transformational route. Based on the Godemann study, the author of this paper assembled the main advantage points and opportunities revealed (Table 1). Advances were mentioned, including (i) the awareness and acceptance of schools for integrating sustainability as part of the curricula, (ii) new courses or syllabus revisions, (iii) sustainability has been embedded within research and teaching, (iv) specific centres or study groups on sustainability have been established, and (v) schools have been committed to ‘greening’ their campuses. Godemann states that the school

community still lacks understanding of, or collaboration with the study centres created, the main focus is on MBA students instead of also promoting change to undergraduates, sustainability themes play a small part in curricula, and there are few collaborative, inter or transdisciplinary teaching initiatives and research practices. The study also helped to clarify the stages through which schools have passed in their evolution, implying specific initiatives that in some way reduce the uncertainty for other schools that have been somewhat behind in their evolution.

Table 1 – Advancements and Opportunities in 100 SIPs reports from PRME signatories in 2010

Principles Related	Advancements toward SD Integration in HEIs	Opportunities toward SD Integration in HEIs
Purpose and Values	Schools are optimistic in accepting their role to promote SD in their educational model;	Low level of understanding or contribution on the research centres created;
	Schools are willing to consider Sustainability as part of their curriculum;	Gap between undergraduates and post graduate because schools seem to offer sustainability related programs to MBA levels only;
	Schools are aware of the imperative for mainstreaming sustainability.	Few schools explain how they move from educational frameworks to goals, learning results and methods;
		Uncertainty about learning outcomes with possible opportunities related to accreditation models (AOL).
Method	Schools are developing new programs or courses to address sustainability, or critically revise their syllabus.	Only some try to embed sustainability issues across the entire curriculum;
		Regarding method, traditional methods prevail, such as case studies, to deliver sustainable education;
		Disciplinary barriers and boundaries separating scholars from practitioners (transdisciplinary approach) appear to remain;
		Involvement with practitioners still mainly takes the form of guest speakers, advisory boards

		members or supporting partners rather than in embedded collaborative sustainability research;
		Only 30% of the schools employ inter, or transdisciplinary teaching - which enables students to learn from other disciplines, it can broaden perspectives and foster competence for group work and for dealing with complex problems.
Research	Schools have made notable achievements in embedding Sustainability within Research and Teaching;	Only some schools apply an interdisciplinary approach in research practice.
	Many schools have established research centres and groups to foster sustainability integration and research.	
Operational	Schools are committed to 'greening' their campus activities and some received certification for environmental management systems or for performance.	

Source: (Godemann, Herzig, Moon, & Powell, 2011)

Note: Information adapted by the author from Godemann's study.

After having focused on the qualitative aspects of the process, it is also important to note quantitative aspects as well. After 10 years of PRME, the community reached more than 650 signatories from 85 countries (Haertle, Parkes, Murray, & Haynes, 2017), showing consistent and widespread progress as shown in Figure 5, above. But, considering the global number of management-related HEIs, the community represents less than 5% of the total HEIs worldwide, according to the 2018 annual report of PRME (UNPRME, 2017). So, having said that, despite relevant progress, as a priority, the opportunities of PRME lay beneath the evolution of quality and quantity.

"Since the turn of the century, understanding of the importance of responsible management education has grown. Many business schools now refer to the wider responsibility business managers have to stakeholders in their mission statements. (...) But it can be argued that the general approach is a few years behind leading corporations

with regard to business sustainability, and while many schools present a commitment to responsible management education, many are yet to meet their commitments” (UN Global Compact, 2015).

2.1. Existing Frameworks and Models to Drive Change

Exploring possible options to overcome over the previously mentioned barriers, some researchers, such as Rusinko (2010), Weybrecht (2017) and Setó-Pamies (2016), have proposed theoretical frameworks or models to guide educational institutions in their transformational change toward sustainable development. Rusinko’s framework, for example, explores alternatives for integrating Sustainability with the main emphasis on curricula, exploring structures (existing and new ones) and types of focus (broad and narrow) to be applied in strategic decisions, as represented in Figure 6, below. Despite the valuable contribution of her work, presenting advantages and opportunities for each given alternative and providing a general vision of different approaches to integrating Sustainability, the focus on curricula covers only a portion of a wider route of transformation involving other pillars in the educational system. In addition, other aspects in curricula could also be explored besides structure and focus, such as learning methods and outcome measurements.

		SHE delivery	
		Existing structures	New structures
SHE focus	Narrow (discipline-specific)	I. Integrate into existing course(s) minor(s), major(s), or programs(s)	II. Create new, discipline-specific sustainability course(s), minor(s), major(s) or programs(s)
	Broad (cross-disciplinary)	III. Integrate into common core requirements	IV. Create new, cross-disciplinary sustainability course(s), minor(s), major(s), or programs(s)

Figure 9 - Rusinko’s Framework

Source: (Rusinko, 2010)

Note: the term “SHE” mentioned in the framework refers to “sustainability in higher education”

With a different approach to proposing a framework, Weybrecht's research (2017) has explored a wider portion of the education system to provide broader guidance on how to advance through the different stages of maturity during a transformational process. Her four-step framework offers more complete and practical guidance that encompasses relevant details on how to approach change at its different stages, it integrates not only principles of responsible management and sustainability, but also drives efforts toward the global 2030 Agenda and its SDG.

In order to provide some of the relevant insights of her four-step framework, the first step suggests an audit beforehand, exploring the school culture and its surroundings, in order to define an overview about how they operate, what they teach, how they teach, who they teach it to, and what is expected of them. To structure this audit, Weybrecht (2017) proposes a "Spectrum of Sustainability Engagement in Business Schools" with five stages of maturity, defined as "Not Engaged", "Engaged", "Strategic", "Integrated", and "Pushing the boundaries", to be evaluated over eighteen layers related to the school system elements. The eighteen layers appear to be divided into three groups, the first being with strategic elements that show how the school connects itself to the cause, the second suggests elements related to how it institutionalises its positioning internally and externally with all stakeholders, and the third group suggests elements related to curricula, research, stakeholder boundaries, relationship approaches and initiatives, and sustainable operational practices established within the campus or with community actors. A summary of this spectrum can be observed in Figure 7, below, and the proposal suggested by Weybrecht (2017) is that evaluation of the audit should be in the first step of the framework but also should become a continuous process of evaluation, so the school can understand at which stage of maturity it stands, the progress of its efforts over time and how it can move forward.

	→	ENGAGED →	STRATEGIC →	INTEGRATED →	→
APPROACH	N O T Y E T E N G A G E D	Embedding	+Collaborating	+Contributing	P U S H I N G T H E B O U N D A R I E S
DRIVE		Bottom up	Top down/bottom up	+Part of the culture	
STRATEGY		Basic – one offs, minimum requirements. Mission statement	Active – Focused strategy but separate.	Integrated throughout, Adaptive and responsive.	
REASONS FOR ENGAGING		Doing the right thing, giving back	Tapping into mutually beneficial opportunities	Multi-dimensional and dynamic	
MEASUREMENT		Inputs	+Outcomes	+Impact	
RESOURCES		Grants, volunteers, in kind	Projects, specified budgets	Collective resources	
TIMELINE		One off or yearly events	Recurring, medium term	Long term – part of strategy and all activities	
ROLES AND RESPONSIBILITIES		Unclear, voluntary. Aware but passive participants	Specific individuals, opportunities for all	Embedded into everyone's responsibilities	
MESSAGES		Focuses in on specific related events or initiatives	+ Written into school's communication materials	Applied consistently and clearly across all activities	
TERMS USED		Ethics, CSR, volunteering, community engagement, responsible management	+ Sustainability, SDGs	Break down sustainability into its individual parts for more targeted response	
MARKETING		Pay to tell your story	Alumni, business partners, tells your story	Story tells itself	
COMMUNICATION		Press releases, news articles	Regular communication and reporting of related, reporting on goals and targets	Integrated reporting engages all stakeholders	
STUDENTS/ CURRICULUM		Self select - Topic covered in dedicated classes/events only	Mandatory but limited exposure. Embedded into classes but presented separately. In classroom discussion and reading	All students reached. Embedded within all core courses/extra curricular activities with additional opportunities for focused study. Opportunities to apply knowledge in real business situations	
FACULTY/ RESEARCH		Unrelated, limited exposure. Specific faculty engaged only	Some training. Relevant centre coordinating research	Engaged fully in discussions as related to their topics. Coordination and facilitation of research across all disciplines. Multidisciplinary	
STAKEHOLDERS		Limited: students, staff, business partners	Identification and engagement of key stakeholders including other schools	Actively collaborate	
RELATIONSHIPS		Asking/one way: recruiting, fundraising, guest speakers, one offs. Siloed	Mutually beneficial partnerships, open communication	Create and engage platforms to facilitate multidisciplinary collaborations	
OPERATIONS - SOCIAL		Minimum standards	Average sector/industry standards and above	Leading practices across sectors/industries	
OPERATIONS - ENVIRONMENTAL		Basic campus greening	+Setting up targets and goals	Closed loop environment	

Figure 10 - Weybrecht Spectrum of Sustainability Engagement in Business Schools
Source: (Weybrecht, 2017)

After understanding where the school stands in the spectrum of maturity levels, the second step of the framework relates to “Embed(ding) sustainability throughout in useful and relevant ways”, and proposes a deep understanding of how each of the existing initiatives at a school can be more effective, considering three complementary approaches: first, how sustainability can be embedded throughout in a useful and relevant manner; secondly, how it can collaborate with different partners and disciplines; and thirdly, how it can contribute to local, national, regional, and global efforts.

For the first topic, Weybrecht (2017) states that the school should embed sustainability in both the education side and business side of its system, covering all

aspects of direct influence over operational performance and relationships with internal and external stakeholders. She also states that sustainability cannot be approached as an isolated subject in the curricula and, instead, should be considered across all curricula so as to reach all students and intersect all subjects such as finance, marketing and strategy. For Weybrecht (2017), the wide integration of sustainability across curricula would change the way people treat the subject, from an add on issue or an external factor or a separate speciality, to an intrinsic matter that influences all dimensions from the business perspective.

“Graduates increasingly need to have the ability to question assumptions; to understand that the way things have always been done is not necessarily the best way for business or for society to continue, and to explore alternatives. Students should be open minded, culturally aware, willing to listen and learn. They should be able to ask the right questions, deal with complexity, recognize opportunities, explore these, communicate these and take action on these in collaboration with other individuals, teams, companies and a range of stakeholders” (Weybrecht, 2017).

Another statement made by Weybrecht, related to the second-step of her framework, is the one warning of the relevance of building complementarity among initiatives in such a way that isolated efforts could lose influence if other efforts are not taken at the same time. Then she calls attention to the relevance of embedding sustainability into the core strategy as being the only way to influence and align all efforts and initiatives with the cause, thereby maximising the potential result of all the efforts contributing toward sustainability.

“It is important to embed sustainability topics across all of a school’s programs and initiatives and, in particular, those that influence and impact students throughout their time at the school. Schools send strong signals to students about what is and what is not important to them as graduates in the business world from the minute they first interact with the school. This starts through the recruitment process, the messages communicated online and in person presentations, even the application questions themselves and the kinds of students that are admitted. Students’ interactions on campus can reinforce or cause them to disregard sustainability talk as just that; talk. Even items handed out during events or to speakers at a conference, which may seem unimportant, contribute to that message” (Weybrecht, 2017).

For the second topic, the author defends the idea that schools should shift the traditional culture of completion toward a collaborative one, considering the multidisciplinary aspect of sustainability issues. She states that the ‘siloes’ approach of teaching sustainability, considering a subject isolated from all other disciplines (business disciplines and non-business disciplines), and also isolated from the surrounding fields of practice (with business and non-business stakeholders),

encourages a culture of competition and creates a gap of understanding on how different subjects and different players are in fact intrinsically connected and also presents complementarity aspects. If schools do not change this siloed approach and begin promoting and facilitating stronger connections and interaction across classrooms, as well as research and practical initiatives with internal and external stakeholders, then it will not be able to play a key role moving forward. If students are to develop new skills and ways of thinking and interacting, with much more complex and holistic relations when leading business, governmental or non-governmental institutions, then the school should represent a “real-life lab”, stimulating and training students to act collaboratively as if they were already in the new reality, projected for a sustainable future.

“Everything that a business school does, the messages that they send and how they send them all connect to create a culture on campus that communicates clearly to students how they will be expected to act in the business world. By creating a more dynamic, relevant and multidisciplinary program, this business school of the future will not only become a more effective laboratory for moving the global community forward in sustainability issues, it will hopefully also attract a much wider range of individuals, regardless of their sex, age, background or business experience” (Weybrecht, 2017).

The third, and final topic within the second-step of the framework, refers to the way schools contribute to local, national, regional and global efforts. It states that schools have a unique opportunity and ability to push the boundaries on campus, in teaching and research, and also to influence students toward increasing engagement in partnerships with external actors in the community, such as business and non-business institutions, to promote and test innovative solutions for the challenges of today. For Weybrecht (2017), the powerful force schools have is massive considering the number of graduations every year, the large number of staff, faculty and partners they have, and all possible institutions and organisations that exist around school boundaries, locally and nationally, regionally and globally.

The third-step of her framework refers to the process of identifying and leveraging specific opportunities encountered in the circumstances and context regarding the connections between the strengths of the school and the needs of the surrounding area. Those opportunities are referred to as the “Unique Engagement Points” (UEPs), and they should represent the intersection between what schools are most capable of offering, such as expertise in a specific knowledge area or type of

research, with what the surrounding stakeholders (any actor for the local or global community) have been challenged to deal with or solve. Schools should then identify its UEPs to drive efforts and focus on them, considering the higher potential in bringing impact to society and also providing students, staff and faculty with learning experience through practice.

The fourth-step, the last one in the framework, refers to empowering the community by creating and enabling a positive and fertile environment, to allow initiatives to be put into practice and to advance toward positive impact. The author suggests that schools could explore this step through initiatives related to training, resources, support, frameworks and clear and consistent communications that institutionalise the culture of values embedded into the strategy. Special attention is paid by the author to the empowerment of faculty, not only because of its potential influence over students, but also because of its direct involvement with curricula design, and research projects with a wide potential for creating impact on business and non-business institutions, both locally and globally. Weybrecht (2017) also suggests that schools should explore forms of incentive and reward to encourage the participation and involvement of all stakeholders in initiatives related to sustainability. For this matter, the author proposes that schools go beyond internal boundaries of incentives and awards by influencing external mechanisms such as rankings, certifications and accreditations, which foster strong influence over the standards and patterns in which schools operate.

Weybrecht's framework (2017) works, overall, as an effective step by step process that guides schools on how to begin, and then advance on the transformational change toward the integration of sustainability into their system. Considering the vast differences in culture, structure complexity, interests, pressures and environments in which each school operates, the framework contents work more as a flexible and adaptable material rather than a checklist of performance achievements over time. Besides its flexibility in application, another relevant aspect of the framework is that it correlates and suggests more intersections with subjects such as CSR, ethics and Sustainability, and also suggests more collaboration of initiatives such as PRME, accreditations and rankings in a way that all of them should touch upon common

interests of transforming schools, so they could respond to the urgent needs stated by the SDG.

Setó's multi-level model is another piece of literature which explores a useful framework for management schools to integrate sustainability values and improve student knowledge and attitudes (Setó-Pamies & Papaoikonomou, 2016). Her model refers to the integration of Ethics, Corporate Social Responsibility and Sustainability (ECSRS) into the school system as an imperative path for schools to assume their role in changing the behaviour and attitude of their students, as future business leaders, consumers and citizens of a more sustainable society. The author states that the only way to promote behavioural change for future graduates is through structural change and the implementation of policies involving different levels of the institutions, rather than isolated changes or ad hoc initiatives. The multi-level approach proposed by Setó's (2016) material presents a three-level approach, involving the institutional level, the curricular level and the instrumental level.

The first level, institutional, represents faculty and university, and this is the level responsible for creating a fertile environment for change, capable of offering incentives and attracting engagement from all internal and external stakeholders. Within this level, critical elements that should incorporate ECSRS refer to mission, vision and values, as well as the cultural orientation of the school, and its strategic plan. There should be governance defined in the organisational structure, capable of coordinating and converging efforts and interests through bottom-up, top-down or horizontal streams of possible collaboration, so despite where the initial motivation for change started, it can be disseminated through all other levels of the school environment. Budget and resource allocation should also be considered at the institutional level, for planning in the short and long term, for initiatives and practices related to ECSRS. At this level, curricula and extracurricular activities should be designed considering students, faculty and staff (Setó-Pamies & Papaoikonomou, 2016).

The second level, curricular, represents course and module design, and it suggests five relevant approaches to explore. The first refers to the concentration or dispersion of ECSRS contents, defining if there should be stand-alone content or subjects embedded into existing content. For this approach, the author suggests that

both alternatives could be applicable, being complements of each other. The second approach to consider refers to the single discipline focus or multidisciplinary focus, and for this dilemma the author defends that multidisciplinary focus is a more effective tactic to reflect the complexity and the multidimensional aspect of sustainability. The next approach mentioned for consideration refers to the possibility of defining courses as obligatory or elective when considering the stand-alone subjects. For this matter, the author suggests that only defining ECSRS related courses as obligatory can guarantee that all students will be affected, translating all school efforts and institutional commitments into positive results. The fourth approach considered at this level refers to the distribution of ECSRS related courses within school degrees, and it could be defined being spread over the years or being concentrated in either the beginning or the final years of graduation, without many concerns regarding differences in effectiveness between those alternatives. The fifth and last approach considered at this level involves the integration of ECSRS related content through current structures (curricula) or through new structures, such as seminars, student associations, sessions, volunteer programs, and others. For this approach, the author suggests that new structures have an extremely relevant complementarity aspect in developing skills and attitudes needed to guide us toward sustainability (Setó-Pamies & Papaoikonomou, 2016).

The last level from the multi-level framework proposed, the instrumental level, is represented by the specific methodologies to be applied to the proposed learning experience. For that matter, the author suggests that the specific learning objectives should be defined first. After that, the pedagogical tools or methodologies should be chosen to be applied. Some of the methodologies mentioned by the author (Setó-Pamies & Papaoikonomou, 2016) were:

- Traditional methodologies: formal lectures; philosophical discussions and dialogues; research papers on ECSRS subjects; newspaper articles; guest lectures
- More innovative ones: full length films, videos, music and cartoons; management games and simulations; electronic bulletin boards; case studies, but mainly the ones developed by the students reflecting real life dilemmas;

- Most effective methodologies from a student opinions survey: reading; class discussions; videos, class projects
- Innovative methodologies, through life-experience: realistic classroom experiences; experimental learning and immersion techniques (excursions involving eco-tourism, internships programs); emphasis on Problem-based learning (PBL)

The decision on choosing one of the methodologies mentioned should consider the respective learning objective defined and the result expected. Despite each of them complying with a particular proposal and providing valuable expected outcomes, the last methodology mentioned, the one which refers to PBL, is the one that offers outcomes involving cognitive, affective and behavioural learning. Considering that affective learning represents the “heart” of sustainable education and, at the same time there is strong resistance from senior students at higher educational institutions to embedding affective learning, this methodology became crucial for consideration as a key contribution at the instrumental level (Setó-Pamies & Papaoikonomou, 2016).

2.2. The Proposal of an Analytical Model of Practices Being Reported

After having explored the proposals of previous frameworks or models, it is important to note that, despite the different approaches and their ranges of focus, each offers valuable, complementary contributions and guidelines to support higher educational schools in transforming their system toward a more responsible, management education, by integrating values and concepts of sustainability, enabling students with the new skills and attitudes needed to move responsible education and SDG forward.

Besides the theoretical approaches of the frameworks mentioned above, there are also other types of frameworks or models that have served as managerial guides for organisations, including educational institutions, supporting and orienting them when planning and monitoring the implementation of sustainability concepts and aspects into their educational strategy. Examples of these other useful types of frameworks and models are: the GRI Standards (Global Reporting Initiative

Standards), which support institutions in adopting global standards for sustainability reporting (GRI, n.d.), and some of the international standards being required by accreditation bodies and the assessment procedures for schools applying, such as the “Standards & Criteria”, from EFMD-EQUIS (EMFD/EQUIS, 2013), or the “Eligibility Procedures and Accreditation Standards for Business Accreditation”, from AACSB (AACSB, 2013).

Another, similar, example of frameworks with a managerial nature – and of particular relevance within the context of this study – refers to “A Basic Guide to the Sharing Information on Progress (SIP)”. This guide serves as an important reference for educational institutions, to aid in developing their reporting process when advancing their transformational journey. It establishes the nature and boundaries of the school reports structure and suggests all the information that should be considered. The guide proposes six stages to approach the reporting process and recommends specific topics to be considered under each of the principles of responsible education. It orients schools on how to understand the advantages of reporting, how to collect, organise and communicate information, and how to improve the routine of reporting over time (Weybrecht G. , s.d.).

1. **COMMIT:** Exploring *why* you are reporting and how to get the most out of the process
2. **COLLABORATE:** Identifying and engaging key internal and external stakeholders in preparing your report
3. **COLLECT:** Determining what information and data to collect, and how to collect and analyse it
4. **CREATE:** Designing a report format that works for you
5. **COMMUNICATE:** Sharing and using your report
6. **CONTINUE:** Keeping track of achievements, goals, and targets in between reporting periods, through a process of continuous improvement



Figure 11 - The Six Stages of the Reporting Process
Source: (Weybrecht G. , s.d.)

Considering the direct influence of this guide on school reports – the central source of this research – the guide becomes another important piece of referential literature for this study. It provides a better understanding of some of the information patterns encountered in the contents of the reports and structures during the deep analysis developed for the proposed qualitative research (Weybrecht G. , s.d.).

Besides the theoretical approaches of frameworks mentioned in the previous sub-topic, and the managerial ones, such as the ones mentioned right above, there is also a type of framework based on analytical models, which explores practical evidence and data. By having clarified the different types of possible frameworks, it is important to make it clear that the type of framework proposed by this study corresponds to this last type mentioned above, referring to an analytical model, exploring practical aspects under which schools have either made progress toward SD – or have struggled to advance. This analytical model – or framework – then becomes a rich opportunity to complement the previously cited theoretical or managerial frameworks and to provide a valuable reference for schools to compare and understand how theory or managerial standards have been put into practice, overcoming difficulties and resistance on the transformational journey. Considering this rich opportunity, and aiming to complement the existing literature, the author of this paper chose to map and evaluate practices being reported by the PRME Champions Group, a specific group of schools committed to spearheading transformational change toward more socially, and environmentally responsible leadership. Their initiatives were then diagnosed and organised throughout the chosen framework, forming a collection of “state-of-the-art” practices being reported and suggesting a pathway of trending patterns to advance education for sustainable development.

2.3. Aligning Concepts

Considering all the literature reviewed, and the reports explored during the research process of this work, a vast range of terms related to Sustainable Development (SD) and Sustainability were observed, either applied as a social concept, or associated with organisational and educational perspectives. In order to

establish a common understanding of the terms encountered and clarify possible confusion around them, the following table was assembled:

Table 2 – Concepts of and related to Sustainable Development

Concepts related to Sustainable Development	Concept Definition
Social Concepts	
Sustainable Development	<p>"The development that meets the needs of the present without compromising the ability of future generations to meet their own needs".</p> <p>Source: (United Nations General Assembly, 1987)</p>
	<p>"Sustainable development, a constantly evolving concept, is the will to improve everyone's quality of life, including that of future generations, by reconciling economic growth, social development and environmental protection. As the above examples illustrate, improving the quality of life takes on a different aspect from one continent to another, from one region to another, and from one country to the next. No single continent, government, institution or individual, however, can attain this alone because the nature of the challenges to overcome requires a global, collective, and individual commitment".</p> <p>Source: (UNESCO, 2005-2014)</p>
Sustainability	<p>Sustainability should be understood as a fundamental value for humanity, related to a profound respect for future generations, in such a way that current decisions and practices do not compromise their choices and freedoms.</p> <p>Source: (Veiga)</p> <p>Note: Author's translation of the video content.</p>
Organisational Concepts related to SD	
Corporate Sustainability	<p>"A company's delivery of long-term value in financial, environmental, social and ethical terms".</p> <p>Source: (UN Global Compact, 2015)</p>
	<p>This Involves responsible business practices, considering economic, social and environmental issues, positive social engagement, and transparency in communication. It also involves having responsible leadership as its foundation</p> <p>Note: definition suggested by the author.</p>
Responsible Leadership	<p>A leadership that integrates sustainable development factors into decision-making patterns, as well as into individual attitudes and behaviours</p>

Note: definition suggested by the author.

Corporate Social Responsibility	<p>"The total corporate social responsibility of business entails the simultaneous fulfilment of the firm's economic, legal, ethical, and philanthropic responsibilities. Stated in more pragmatic and managerial terms, the CSR firm should strive to make profit, obey the law, be ethical, and be a good corporate citizen".</p> <p>Source: (Carroll, The pyramid of corporate social responsibility: toward the moral management of organizational stakeholders, 1991)</p>
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Integrates Sustainability values across the responsibilities of the company, despite the broad range of legal or ethical maturity levels among different cultures around the globe.

Note: definition suggested by the author.

Educational Concepts related to SD

Education for Sustainable Development	<p>"ESD prepares people of all walks of life to plan for, cope with, and find solutions for issues that threaten the sustainability of our planet".</p> <p>Source: (UNESCO, 2005-2014)</p>
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An educational model dedicated to increasing the awareness, knowledge, skills, and values related to social, environmental and economic issues for future professionals, decision-makers, entrepreneurs, leaders and citizens at large.

Source: (Blanco-Portela, Benayas, Pertierra, & Lozano, 2017)

Note: definition suggested by the author inspired on concepts of Blanco-Portela (2017).

Responsible (Management) Education	<p>Educational model that integrates principles of CSR and values of Sustainability across curricula, research, campus activities, operations and outreach, intended to shape professionals, decision-makers, entrepreneurs, leaders and citizens capable of dealing with the complexity of the multidimensional challenges related to Sustainable Development.</p> <p>Note: definition suggested by the author.</p>
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3. Method

3.1. Documental Analysis Methodology

The methodology chosen to structure this research was the documental analysis through a qualitative study of a wide range of reports. To clarify the nature of the reports, they are public documents, produced by higher educational institutions, with institutional importance, mainly with retrospective information, and published through the PRME platform with an approximate interval of two years.

The methodology allowed for a deep evaluation of the content of the reports, involving coding and grouping content under specific subjects. It also allowed us to identify common patterns among the content, such as word frequency based on a discretionary search or an oriented search. As a reference, to guide the analysis and coding process, the author used some concepts from Miles's book "Qualitative Data Analysis" (Miles, Huberman, & Saldana, 2014). To facilitate the process of documental analysis, this study used NVivo as the software platform to organise the database, to create codes through nodes and case categories, to define links and connections among sources, references and codes created, and to explore queries of word frequency evaluation.

3.2. Codification and Categorisation Process

The codification and categorising process was in three stages, in which information was grouped and categorised by similar elements encountered across the qualitative evaluation of the reports. The first stage had a bottom-up approach based on a detailed analysis of documental data and a codification process for all data. The second stage involved a new step of categorisation, and the assembly of groups of elements with similar concepts or complementary outcomes expected. And the third stage involved attaching each of the groups under each of the six principles of PRME. A more detailed explanation of each stage follows below.

3.2.1. Bottom Up mapping process – creating “primary buckets”

In order to identify and classify initiatives among all the reports, the author mapped the content, identifying repeatable or innovative initiatives and defined a name to represent each group of similar initiatives. For example, when two or more reports showed that their mission statement had been changed or adapted to incorporate sustainability values, the author defined the name “Pre-existing mission aligned or adjusted to PRME” and linked those contents as references and sources for that specific group created. In an illustrative comparison, this bottom up procedure was like a method of collecting similar stones (initiatives) from different places (reports), assembling them together in small groups (“primary buckets”) and naming each group of similar stones according to what defines them (creating node names).

A relevant aspect of this first stage refers to the criteria applied to the consideration – or the discarding – of each of the initiatives encountered throughout the reports, in order to decide the final structure of the framework. For this matter, the criteria used by the author was a minimum frequency of 15% appearance over the total research base sample. Anything below that minimum frequency, the initiative would represent low, overall relevance, and would result in it being excluded from the list.

Exceptions were considered for initiatives with a low frequency rate but with direct relation to elements from previous frameworks explored during the literature review topic of this work. For example, if a specific initiative presented 10% frequency but was related to one of the concepts considered important in Weybrecht’s (2017) or Setó’s (2016) studies, the initiative was kept as part of the framework in order to identify how this kind of practice was being introduced into the transformational process of the school.

3.2.2. Defining intermediary groups – creating “secondary buckets”

After having set the bottom-up list of initiatives, the author defined intermediary groups by connecting groups of initiatives (primary buckets) based on similar concepts or complementary outputs expected from them. For example, initiatives such as “pre-existing mission aligned or adjusted to PRME” and

“incorporation of PRME into the school strategy” are both related to establishing long-term commitment toward PRME integration, so both were joined in a “bucket” named “Long Term Institutional Commitment”. The naming and assembly process, for the primary initiatives or for the intermediary groups, attempted to combine analogous terminology in order to organise initiatives together, with a clear vision of the ones with complementary efforts and similar outcomes.

3.2.3. Organising Primary and Secondary Groups Under the Six Principles – “Principles Buckets”

The bottom up mapping process, resulting in a primary list of initiatives (“primary buckets”) and the organisation of these initiatives into larger groups (“secondary buckets”), were simultaneously organised considering the six PRME pillars. Both stages of categorising and grouping initiatives followed an almost natural segregation among the six principles, considering that most of the reports had already associated their information accordantly with the six principle concepts, making it easy to allocate initiatives to their respective principle (or principles). However, some discrepancies were noted in the way each school connects initiatives to more than one or several principles.

3.2.4. Illustrative Summary of the Process of Analysing, Codifying and Assembling Data

The following figure illustrates the process in which this research was developed, in order to structure the Practical Framework.

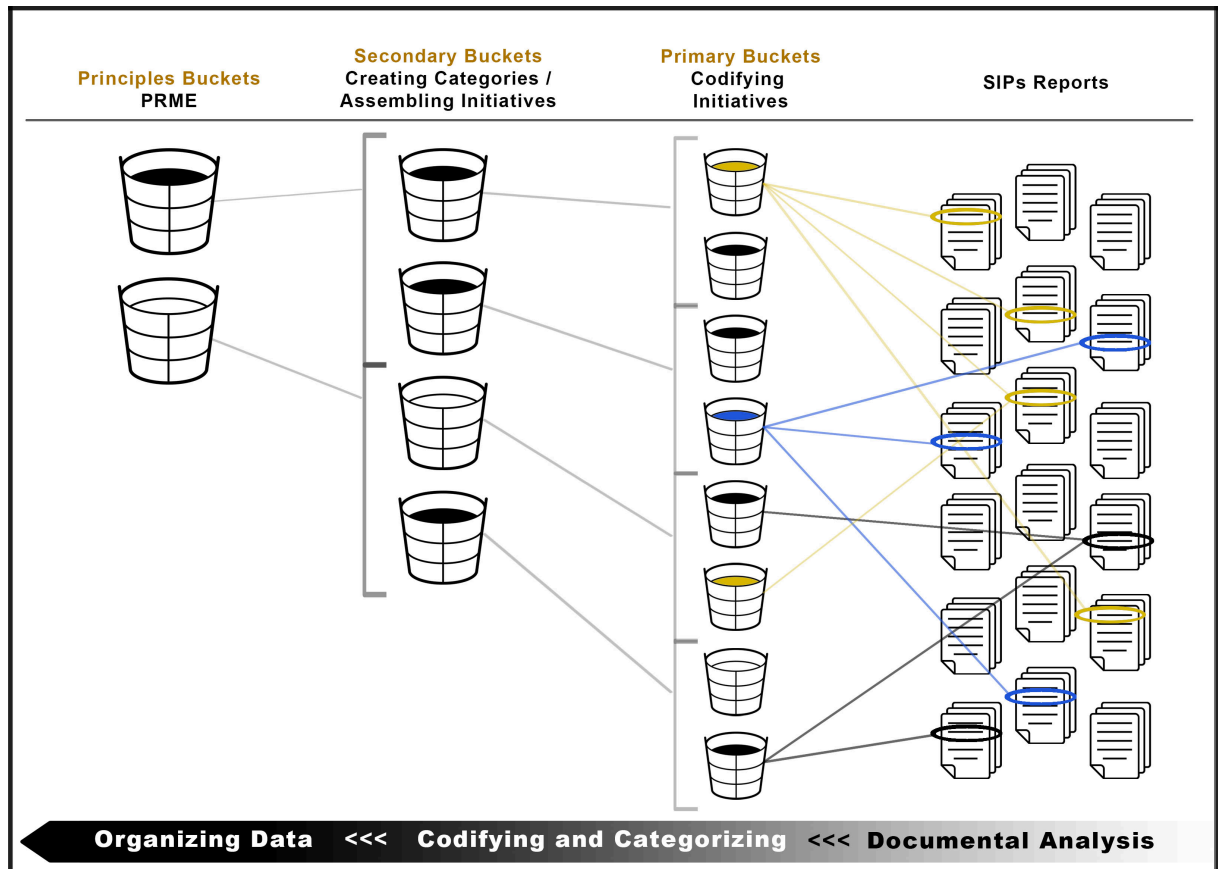


Figure 12 - Process used during the qualitative research to structure the proposed framework
 Note: Illustration produced by the author.

3.3. Sampling Selection Criteria

The object or source of this research was 29 institutional reports published by 18 higher educational institutions through the PRME platform, in the last 8 years. This sample of reports and institutions corresponds to 64% of the total population, according to the Champions Group members list, based on 2017 records available through the PRME public platform.

Considering that the sum total of Champions Group members is spread throughout different countries and regions around the world and presents diverse characteristics regarding size and type of institution structure, accreditations or memberships acquired, each HEI was classified based on different attributes and characteristics. After this classification process, the selection of the sample group of HEIs (Research Base Sample) followed a 'Stratified Sampling Technique' (SocialCops, n.d.). According to this type of technique, the population is divided into categories based on characteristics of importance to the research before the sample

is defined. After classification, the population is then arbitrarily sampled within each category or stratum, aiming to reflect the main characteristics of the population within the sample. This method ensures the sample is a coherent representation of the population, although it involves more complexity due to the stratification stages.

The stratification of the population (Champions Group members) is based on different characteristics, and the results of the arbitrary selection of the sample are summarised below:

- a) HEI country characteristics: the sampling criteria attempted to select HEIs with similar characteristics to the Champion Group based on the Human Development Index and World Economic Situation and Prospect (WESP) of the countries. A difference of up to 5% in each classification attribute was considered acceptable to define the sample:

Human Development Index / HEI's Country	RESEARCH BASE SAMPLE	PRME CHAMPIONS TTL HEIs (2017)	DIFFERENCE < [5] %
Medium	17%	14%	⇒
High	17%	18%	⇒
Very High	67%	68%	⇒

World Economic Situation and Prospects (WESP) / HEI's Country	RESEARCH BASE SAMPLE	PRME CHAMPIONS TTL HEIs (2017)	DIFFERENCE < [5] %
Developing	39%	36%	⇒
Developed	22%	25%	⇒
Major developed (G7)	39%	39%	⇒

Figure 13 - Comparison between Research Base Sampling with PRME Champions Group Characteristics

Source: (Development Policy and Analysis Division (DPAD), 2014) (United Nations Development Programme (UNDP), 2016).

Note: Author's data aggregation based on United Nations reports.

- b) HEI structure complexity: the sampling criteria also attempted to select HEIs with similar attributes of the Champion Group considering school structure. And the same 5% difference in each classification attribute was accepted for these criteria – for these groups of attributes, only one attribute showed a difference of over 5% but with low impact on the overall attributes considered:

Type of Institution (Public/Private)	RESEARCH BASE SAMPLE	PRME CHAMPIONS TTL HEIs (2017)	DIFFERENCE < [5] %
Private	50%	54%	→
State	50%	46%	→

Students Enrollment Range	RESEARCH BASE SAMPLE	PRME CHAMPIONS TTL HEIs (2017)	DIFFERENCE < [5] %
Very Low	22%	21%	→
Low	33%	25%	↑
Medium	22%	25%	→
High	11%	14%	→
Very High	11%	14%	→

Field of Study Range	RESEARCH BASE SAMPLE	PRME CHAMPIONS TTL HEIs (2017)	DIFFERENCE < [5] %
Very Narrow	28%	29%	→
Narrow	28%	21%	↓
Medium	6%	7%	→
Broad	28%	32%	→
Very Broad	11%	11%	→

Faculty Size Range	RESEARCH BASE SAMPLE	PRME CHAMPIONS TTL HEIs (2017)	DIFFERENCE < [5] %
Very Small	22%	18%	→
Small	17%	21%	→
medium	6%	7%	→
Large	28%	29%	→
Very Large	28%	25%	→

Part of a larger Educational Structure?	RESEARCH BASE SAMPLE	PRME CHAMPIONS TTL HEIs (2017)	DIFFERENCE < [5] %
Yes	56%	61%	→
No	44%	39%	→

Figure 14 - Comparison between Research Base Sampling with PRME Champions Group Characteristics

Source: Schools' website; (AASCB, n.d.).

Note: Author's data aggregation based on school website information and AASCB profiles (when applied).

The different ranges related to 'Student Enrolment', 'Field of Studies', and 'Faculty Size' were defined based on the tables below, which considered different scales or layers of complexity considering the overall characteristics of the HEIs from the Champions Group.

Total Students Enrollment / Year (2016/2017)	Field of Studies Offered (2016/2017)	Faculty Size (Full Time + Part Time)
Very Low 1-1.000	Very Narrow 1-5	Very Small 1-50
Low 1.001-3.000	Narrow 6-10	Small 51-100
Medium 3.001-5.000	Medium 11-15	Medium 101-150
High 5.001-10.000	Broad 16-20	Large 151-200
Very High ≥10.001	Very Broad ≥21	Very Large ≥200

Figure 15 - Classification ranges for attributes of structure complexity

Source: Schools' websites; (AASCB, n.d.).

Note: Author's data aggregation based on school website information and AASCB profiles

Some important conclusions on the characteristics of the sample attributes considered above are:

- ✓ They are well balanced between private and public schools;
- ✓ ~30% of the schools have above 5,000 (five thousand) students enrolled, and 11% of them are part of larger structures;
- ✓ Fields of study and faculty size are relatively balanced between the ones below and above the 'medium' range;
- ✓ 56% of the schools are part of larger institutions.

c) HEI accreditations: the sampling selection criteria also considered selecting HEIs with similar characteristics regarding accreditation, considering the most frequent accreditations presented among the Champions Group, as follows:

Accreditations Range	RESEARCH BASE SAMPLE	PRME CHAMPIONS TTL HEIs (2017)	DIFFERENCE < [5] %
AACSB	61%	61%	→
EFMD (EQUIS)	83%	79%	→
AMBA	39%	43%	→
ASHOKA	11%	11%	→

Figure 16 - Comparison between Research Base Sampling with PRME Champions Group Characteristics

Source: (AACSB, n.d.) (EFMD, n.d.) (FINDMBA, n.d.) (AshokaU, s.d.).

Note: Author's data aggregation based on accredited members lists.

Some of the conclusions of the characteristics of the sample attributes considered above are:

- ✓ The most frequent accreditation observed refers to the EFMD (EQUIS), following by the AACSB;
- ✓ The ASHOKA certification appears to be a possible trend of a valuable endorsement among institutions to validate the campus as a positive environment to promote positive change.

d) HEI participation in Global Compact: the participation in the Global Compact was also considered in the selection criteria attempting for a similar characteristic of the Champions Group, as follows:

Participant of Global Compact?	RESEARCH BASE SAMPLE	PRME CHAMPIONS TTL HEIs (2017)	DIFFERENCE < [5] %
yes	44%	39%	↓
no	56%	61%	↑

Figure 17 - Comparison between Research Base Sampling with PRME Champions Group Characteristics

Source: (UN Global Compact, n.d.)

Note: Author's data aggregation based on Global Compact members list.

- e) HEI maintenance into Champions Group for the 2018-19 cycle: the last criteria attempted to select the sample group of HEIs depending on whether each had extended its commitment with the Champions Group toward the following bi-annual cycle of 2018-19. Based on the update for this year on the Champions Group members, the author of this work attempted to prioritise the HEIs that have continued as part of the Champions Group instead of the ones that have no longer maintained their commitment to the group. For these criteria, the intention was to leverage the participation of schools that have continued their participation in the Champions Group, as follows:

PRME Champion Maintenance for 2018-19	RESEARCH BASE SAMPLE	PRME CHAMPIONS TTL HEIs (2017)	DIFFERENCE < [5] %
No longer a member of Champion Group	11%	29%	↓
Remain as a member of Champion Group	89%	71%	↑

Figure 18 - Comparison between Research Base Sampling with PRME Champions Group Characteristics

Source: (UNPRME, 2017) (UNPRME, s.d.).

Note: Author's data aggregation based on PRME 2017 report and website information

3.4. Final Sample Data Base for Research

After having applied all criteria mentioned above, the final sample of HEIs for the research of this work is presented in the following tables:

Country/Region	RESEARCH BASE SAMPLE	PRME CHAMPIONS TTL HEIs (2017)	% RESEARCH BASE SAMPLE
Australia	1	2	50%
Denmark	1	1	100%
Finland	1	1	100%
France	1	1	100%
Germany		1	0%
India	1	2	50%
Ireland		1	0%
Latin America	3	5	60%
North America	4	6	67%
Philippines	1	1	100%
Slovenia		1	0%
South Africa	1	1	100%
Switzerland	1	1	100%
UK	2	3	67%
United Arab Emirates	1	1	100%
Total	18	28	64%

Figure 19 - Resume of the quantity of HEIs considered in the sample per country or region versus Champions Group

Source: (UNPRME, 2017) (UNPRME, s.d.)

Note: Author's data aggregation based on PRME 2017 report and website information.

HEI'S FROM THE RESEARCH BASE SAMPLING		CLASSIFICATIONS PARAMETERS: LOCATION CONTEXT		CLASSIFICATIONS PARAMETERS: ACCREDITATIONS / CERTIFICATE			CLASSIFICATIONS PARAMETERS: CHAMPION GROUP / GC PARTICIPANT		
Country / Region	High Educational Institutions (HEIs)	Human Development Index / HEI's Country	World Economic Situation and Prospects (WESP) / HEI's Country	AACSB	EFMD (EQUIS)	AMBA	ASHOKA	Remain member of PRME Champion in 2018-19?	Global Compact Participant?
1 Philippines	Asian Institute of Management (AIM)	MEDIUM	Developing	AACSB	EFMD (EQUIS)	-	-	yes	no
2 France	Audencia Nantes School of Management	VERY HIGH	Major developed (G7)	AACSB	EFMD (EQUIS)	AMBA	-	yes	yes
3 North America	Babson College	VERY HIGH	Major developed (G7)	AACSB	EFMD (EQUIS)	-	ASHOKA	yes	no
4 Latin America	CENTRUM Católica Graduate Business School	HIGH	Developing	AACSB	EFMD (EQUIS)	AMBA	-	no	yes
5 Denmark	Copenhagen Business School	VERY HIGH	Developed	AACSB	EFMD (EQUIS)	AMBA	-	yes	no
6 Latin America	EGADE, Graduate School of Business Administration and Leadership	HIGH	Developing	AACSB	EFMD (EQUIS)	AMBA	-	yes	yes
7 Latin America	Externado University Management Faculty	HIGH	Developing	-	EFMD (EQUIS)	-	-	yes	yes
8 UK	Glasgow Caledonian University	VERY HIGH	Major developed (G7)	-	EFMD (EQUIS)	-	ASHOKA	yes	yes
9 South Africa	Graduate School of Business - University of Cape Town	MEDIUM	Developing	AACSB	EFMD (EQUIS)	AMBA	-	yes	yes
10 Finland	Hanken School of Economics	VERY HIGH	Developed	AACSB	EFMD (EQUIS)	AMBA	-	yes	no
11 India	ILM, Institute for Higher Education	MEDIUM	Developing	-	EFMD (EQUIS)	-	-	no	no
12 Australia	La Trobe Business School	VERY HIGH	Developed	-	EFMD (EQUIS)	-	-	yes	yes
13 North America	Leeds School of Business	VERY HIGH	Major developed (G7)	AACSB	EFMD (EQUIS)	AMBA	-	yes	no
14 North America	School of Business, Government, and Economics	VERY HIGH	Major developed (G7)	AACSB	-	-	-	yes	no
15 Switzerland	University of Applied Sciences HTW Chur	VERY HIGH	Developed	-	-	-	-	yes	no
16 United Arab Emirates	University of Dubai	VERY HIGH	Developing	AACSB	EFMD (EQUIS)	-	-	yes	no
17 North America	University of Guelph College of Business and Economics	VERY HIGH	Major developed (G7)	-	EFMD (EQUIS)	-	-	yes	no
18 UK	Winchester Business School	VERY HIGH	Major developed (G7)	-	-	-	-	yes	yes

HEI'S FROM THE RESEARCH BASE SAMPLE		CLASSIFICATIONS PARAMETERS: STRUCTURE COMPLEXITY					
Country / Region	High Educational Institutions (HEIs)	Type of Institution (State/Private) (I)	Part of a larger Educational Structure? (II)	Students Enrollment Range (III)	Field of Studies Range (IV)	Faculty Size Range (V)	OVERALL COMPLEXITY RANGE (VI)
1 Philippines	Asian Institute of Management (AIM)	Private	no	Low	Very Narrow	Very Small	LOW
2 France	Audencia Nantes School of Management	Private	no	Medium	Narrow	Large	MEDIUM
3 North America	Babson College	Private / Not-for-profit	no	Medium	Very Narrow	Large	LOW
4 Latin America	CENTRUM Católica Graduate Business School	Private	yes	High	Narrow	Large	HIGH
5 Denmark	Copenhagen Business School	State	no	Very High	Very Broad	Very Large	HIGH
6 Latin America	EGADE, Graduate School of Business Administration and Leadership	Private / Not-for-profit	yes	Low	Very Narrow	Large	MEDIUM
7 Latin America	Externado University Management Faculty	Private	yes	Low	Narrow	Small	MEDIUM
8 UK	Glasgow Caledonian University	State	no	Very High	Very Broad	Very Large	LOW
9 South Africa	Graduate School of Business - University of Cape Town	State	yes	Very Low	Very Narrow	Small	MEDIUM
10 Finland	Hanken School of Economics	State	no	Low	Narrow	medium	MEDIUM
11 India	ILM, Institute for Higher Education	Private	no	Low	Very Narrow	Very Small	LOW
12 Australia	La Trobe Business School	State	yes	High	Broad	Very Large	HIGH
13 North America	Leeds School of Business	State	yes	Medium	Broad	Very Large	HIGH
14 North America	School of Business, Government, and Economics	Private	yes	Very Low	Narrow	Very Small	LOW
15 Switzerland	University of Applied Sciences HTW Chur	State	yes	Low	Medium	Large	HIGH
16 United Arab Emirates	University of Dubai	Private	no	Very Low	Broad	Very Small	LOW
17 North America	University of Guelph College of Business and Economics	State	yes	Medium	Broad	Small	HIGH
18 UK	Winchester Business School	State	yes	Very Low	Broad	Very Large	HIGH

Figure 20 - List of the HEIs considered in the sample and their characteristics regarding different attributes for selection criteria

Source: School websites; (Development Policy and Analysis Division (DPAD), 2014) (United Nations Development Programme (UNDP), 2016) (AACSB, n.d.) (UN Global Compact, n.d.) (UNPRME, s.d.) (UNPRME, 2017).

For the structure complexity range, as showed in the table above, the author of this work defined a specific weight for each attribute (I, II, III, IV, and V), in order to compound a final or overall range of complexity for each HEI. The more complexity each of the attributes offers, the more difficult it is for each institution to promote

changes across its system. For that composition, the following considerations were applied:

- (I) Type of Institution: Private or Public institutions offer different levels of school independence or autonomy to drive their educational strategy. For this work, the author assumed that state schools are less autonomous than private ones, considering that they have to follow the rules and standard strategies defined by their governments. For that matter, public institutions were considered to have a higher level of complexity to drive changes and were therefore weighted as (+1) for the total complexity range composition. Private ones were considered as neutral weight, that means (0) for the overall complexity range.
- (II) Part of a larger educational structure: each educational institution was evaluated as being an independent institution or being a division of a larger educational institution. For that attribute, the author considered that dependent institutions, the ones that are subdivision of larger structures, also have less autonomy and therefore more complexity to drive change in their educational system. Those were then weighted as (+1) while the independent ones were considered as (0) weight.
- (III) (IV) and (V) Each of these three columns (Student Enrolment, Fields of Study and Faculty Size) presents five (5) possible levels of complexity in terms of amount of people or content to engage and evolve toward change. For each level of complexity within each column, a specific weight from (0) to (+4) was attributed as showed below:

Type of Institution (State/Private) (I)	Part of a larger Educational Structure? (II)	Students Enrollment Range (III)	Field of Study Range (IV)	Faculty Size Range (V)
0 ○	0 ○	0 ○	0 ○	0 ○
1 ●	1 ●	1 ●	1 ●	1 ●
		2 ●	2 ●	2 ●
		3 ●	3 ●	3 ●
		4 ●	4 ●	4 ●

Figure 21 - Levels of complexity: considered to obtain a general range of complexity levels
Note: Author's attribution criteria.

- (VI) The overall complexity range is a result of all attributes mentioned considering the following composition:

$$\text{Overall Complexity Range (VI)} = (I) + (II) + \text{Average (III+IV+V)}$$

The proposed 'overall complexity range' is relevant information when comparing the results of the framework and the level of complexity schools face when advancing toward changes. It is valuable to understand which changes are being promoted in the context of low or even higher complexity.

Important findings regarding the overall complexity ranges show that:

- ✓ 44% of the sample are considered to have high levels of complexity based on the group of criteria applied and the weight, considered to compound the overall complexity rate;
- ✓ The other 56% of the sample are considered to have low or medium levels of complexity for their school structure.

3.5. Possible Weaknesses of the Method

The documental analysis methodology has met the needs of this work well in terms of structural process. However, some possible weaknesses were observed related to the nature of the documents analysed. For this matter, some important characteristics to consider refer to the following aspects: the reports are auto-declaratory documents without a third-party institution being responsible for endorsing their content; they are written without a specific guideline for structure or standard information required and, even reports from the same school might present a lack of patterns over the years due to frequent changes of authors or governance responsible for their production. All those aspects contribute to the lack of standards and patterns observed across the documents, which implies high levels of difficulty and some subjectivity in the process of defining patterns and common categories for the broad range of initiatives encountered.

Another consideration, that could be argued, refers to the sample of schools chosen to represent a group of leading institutions that have advanced the transformational change of educational models toward PRME. The definition of the PRME Champions Group, as previously explored in this work, deals with the proposal of selecting leading institutions that have actively shared their progress across and beyond the educational community. However, it is important to note that considering

the biannual cycle of the Champions Group, every two years the group of schools representing the Champions Group might change slightly. Even though changes in its members have not been significant since the group was created in 2013 as a biannual pilot proposal, this year in particular, 2018, it could be observed that one third of the schools have left the group and, at the same time, some other schools entered the group for the next biannual cycle, replacing the ones that have left and increasing the total amount of schools enrolled to the Champions Group. Considering this dynamic of the Champions Group representation, the author of this paper chose to prioritise the schools that have continued in the Champions Group for the coming cycle referred to as 2018-2019, using that criteria in the sample selection process. By doing so, the schools considered for the sample are the ones with longer term commitment to the PRME Champions Group, which minimises possible arguments regarding the stability of the sample chosen.

4. Results

The results of this work, following three different topics, will be presented below. First, the primary results obtained through the analytical model – referred to here as a framework – will describe the practices diagnosed, with all their initiatives and groups of initiatives created (primary and secondary buckets). In addition to the structure of initiatives themselves, the results will also demonstrate the frequency at which each group of activities was encountered through the documental analysis of the sample of HEIs reports. The frequency of occurrence represents valuable findings of the analysis process.

The second part presents the results of an analysis focusing on the connection among initiatives and the specific characteristics of the HEIs, based on the classification criteria established during the sample evaluation. The analysis of possible connections was a process to discover potential direct or indirect relations among the characteristics of initiatives and HEIs, representing other valuable findings in this work.

The last and third part of the results presents a three-dimensional view of the same content presented previously, but considering essential connections observed among initiatives from the different groups or buckets. The idea of the three-dimensional vision of the results of the framework developed is to represent its core outputs in a more interactive, and organic manner.

4.1. The “State-Of-The-Art” Practices Being Reported

As a result of the proposed framework (analytical model of diagnose), the following structure was created as a simple view of all groups of practices diagnosed, which will be further explored in this topic:

Table 3 – Result - General Structure of Practices Reported

PRME Principles Buckets	Group of Outcomes / initiatives Secondary Buckets	Group of Initiatives encountered in SIPs Primary Buckets
PURPOSE <i>"We will develop the capabilities of students to be future generators of sustainable value for business and society at large and to work for an inclusive and sustainable global economy".</i>	Long Term Institutional Commitment	<p>Pre-existing mission/vision/values of the school aligned to PRME or adjusted after becoming a signatory.</p> <p>Incorporation of PRME in the school strategy as a value creation process instead of a "stand-alone" internal tactic.</p> <p>Top-down approach.</p> <p>Bottom-up approach.</p>
	Governance / Resource allocation	<p>Internal governance is established as a core faculty structure to assume commitment for developing PRME, its disseminations and progress.</p> <p>Faculty or Curriculum Committee established with multifunctional members.</p> <p>Specific resources and/or budget allocated.</p>
	Continuous Improvement Process	<p>Long-term tracking of achievements (past), ongoing activities status (present), goals (future) and challenges.</p> <p>Scorecard or metrics created.</p>
VALUE <i>"We will incorporate into our academic activities and curricula the values of global social responsibility as portrayed in international initiatives such as the United Nations Global Compact".</i>	Institutionalisation of values and principles across school activities and curricula	<p>Formally disseminate guidelines and principles that shape school with a value-based culture.</p> <p>Assumes plans to advance SDG across school curricula and activities.</p>
	Faculty and staff engagement and training	<p>Empowerment and incentives for faculty and staff.</p>
	Impact measurement	<p>Use assessment tools to measure results.</p> <p>Plan to initiate or advance the use of assessment tools to measure results.</p> <p>Communicate the initiatives that have positively supported SDGs.</p>
METHOD <i>"We will create educational frameworks, materials, processes and environments that enable effective</i>	Curriculum innovation and redesign to integrate Sustainability values	<p>Sustainability values <u>embedded as a major subject</u> and with a multidisciplinary approach into <u>existing required management disciplines</u> (strategy, finance and accounting, marketing, operations, human resources, organisational behaviour, leadership, entrepreneurship, etc.), <u>dispersed or concentrated throughout all courses</u> offered. Syllabus revision required.</p>

learning experiences for responsible leadership”.

Sustainability values structured as stand-alone subjects as new required and specific disciplines (ethics, anticorruption, environmental context, consumer culture, sustainable development concepts, etc.), dispersed or concentrated throughout all courses offered. New syllabus developed.

Sustainability values structured as stand-alone subjects as new elective and specific disciplines (ethics, anticorruption, environmental context, consumer culture, sustainable development concepts, etc.), dispersed or concentrated throughout all courses offered. New syllabus developed.

Sustainability values structured as stand-alone course, major or minor related to Sustainability and with new, required disciplines. New syllabus developed.

Apply 3 or 4 initiatives above

Methodology innovation to develop new knowledges, skills, change behaviours and attitudes

(I) Traditional methods: formal lectures; philosophical discussions and dialogues; research papers on Ethics, CSR or Sustainability subjects; newspaper articles; guest lectures; readings; and similar.

(II) More innovative methods: full length films, videos, music and cartoons; management games and simulations; electronic bulletin boards; case studies but mainly the ones developed by the students reflecting real life dilemmas; class projects; prototyping project scope and possible solutions; and similar.

(III) More innovative methods through living learning experiences: realistic classroom experiences involving multidisciplinary teams; experimental learning and immersion techniques (e.g., excursions involving eco-tourism, internship programs, foreign visits and programs, community service learning experience); emphasis on Problem-based learning (PBL).

(IV) More innovative methods through living learning experiences focused on self and contextual awareness: projects involving artistic expression; transdisciplinary classes with theory and practice.

Apply 2 or 3 initiatives above

Student support

Provide mentorship programs to support students on their projects and career development with regard to decisions that consider the awareness of their role as responsible social leaders.

Provide scholarship programs to incentivise diversity in the school community, bringing global students with different cultures, experiences, and perspectives to the community.

RESEARCH <i>"We will engage in conceptual and empirical research that advances our understanding about the role, dynamics, and impact of corporations in the creation of sustainable social, environmental and economic value".</i>	Increasing Publications, Presentations, and Projects	<p>Continuously present an increasing amount of publications and presentations with subjects related to PRME, the main topics explored, and the percentage of them related to all publications and presentations being generated by the school.</p>
		<p>Development of interdisciplinary research projects with direct or potential impact on social and environmental responsibility challenges under local, national, regional or global context.</p>
	Centre of Study in CSR and or Sustainability	<p>Centre of Study in CSR and or Sustainability responsible for influencing and generating research projects beyond school boundaries.</p>
PARTNERSHIP <i>"We will interact with managers of business corporations to extend our knowledge of their challenges in meeting social and environmental responsibilities and to explore jointly effective approaches to meeting these challenges".</i>	College and business collaboration for multidisciplinary and cross-cultural experiences	<p>Create and/or participate in college collaboration efforts to offer multidisciplinary courses through a specific certification program which combines different perspectives from different students, with joint skills and knowledge, to develop projects related to PRME during the course.</p>
		<p>Provide foreign courses related to PRME with experimental and service learning in different global contexts.</p>
	Co-curricular and extra-curricular activities for real life experiences for students, faculty and staff	<p>Programs for consulting services, volunteer services and internships with business, government, NGOs and/or community.</p>
		<p>Competitions, awards, incentives and sponsorship for student participation in social programs, labs and projects.</p>
		<p>High-level executives or entrepreneur participation in dialogue programs or seminars with students to explore real life dilemmas related to triple bottom line concepts applied to decision making.</p>
	Participation in groups, associations, boards, events and communication vehicles	<p>Member of boards, groups or associations, influencing systems and agendas among external stakeholders; actively participating in conferences and meetings, exchanging best and innovative practices.</p>
DIALOGUE (with stakeholders and society) <i>"We will facilitate</i>		<p>Use of communication vehicles to disseminate subjects and projects related to PRME, SDG, CSR, and similar.</p>
	Diversity in campus	<p>Establish partnerships with organisations to enhance diversity in school communities, among staff, faculty, and students.</p>
	Incentivise and support living-learning community activities on campus	<p>Host and promote conferences, forums, workshops, celebrations to dialogue about topics related to social and environmental responsible leadership, involving different stakeholders from local and global communities and with a cross-disciplinary approach.</p>

<i>and support dialog and debate among educators, students, business, government, consumers, media, civil society organisations and other interested groups and stakeholders on critical issues related to global social responsibility and sustainability".</i>		Incentivise internal student communities to promote dialogues and activities on topics or projects related to social and environmental responsible leadership.
		Sponsor marketplaces for social innovation projects developed by students or school community.
	Stakeholders continuously perception	Apply questionnaires or interviews with school stakeholders (student, staff, faculty, civil society of school community, businesses, non-profit organisations, other schools) regarding subjects of interest and perceptions of local and global challenges.
OPERATIONS <i>"We understand that our own organisational practices should serve as an example of the values and attitudes we convey to our students".</i>	Assume responsibility for the social and environmental impact of the school ("Walk the walk", or "Lead by Example")	Create and participate in programs, projects and initiatives involving the reduction of the environmental impact of the school and leveraging social well-being conditions across the school community and its surroundings.

Note: Author's production as result of the research process.

In order to explore the results, the Framework will be presented dividing each of the six principles (PRME) presented in the first column, referred to in the "Principles Bucket". A seventh principle, referred to as "Operations", is considered in the framework based on the common understanding of the PRME community that even though there are formally six principles, the majority of the institutions considers the seventh one an essential requirement to consider.

Each of the principle buckets will be presented with its respective initiatives correlated (primary buckets) organised in categories (secondary buckets). For each existing initiative in the framework there is a frequency ratio representing how regularly it was encountered, meaning, more or less, consistency through the reports.

The results of the framework are represented by the initiatives themselves, then the frequency ratio, and the findings explored through quantitative and qualitative analysis of them, and of potential interaction and interdependence among them. All results are explored through the following topics.

4.1.1. Purpose

Table 4 – Result - General Structure of Practices Reported / PURPOSE

PRME Principles Buckets	Group of Outcomes / initiatives Secondary Buckets	Group of Initiatives encountered in SIPs Primary Buckets	% Frequency
PURPOSE <i>"We will develop the capabilities of students to be future generators of sustainable value for business and society at large and to work for an inclusive and sustainable global economy".</i>	Long Term Institutional Commitment	Pre-existing mission/vision/values of the school aligned to PRME or adjusted after becoming a signatory.	72%
		Incorporation of PRME in the school strategy as a value creation process instead of a "stand-alone" internal tactic.	56%
		Top-down approach.	33%
		Bottom-up approach.	56%
	Governance / Resource allocation	Internal governance is established as a core faculty structure to assume commitment for developing PRME, its disseminations and progress.	33%
		Faculty or Curriculum Committee established with multifunctional members.	17%
		Specific resources and/or budget allocated.	11%
	Continuous Improvement Process	Long-term tracking of achievements (past), ongoing activities status (present), goals (future) and challenges.	22%
		Scorecard or metrics created.	11%

Note: Author's production as result of the research process.

The Purpose 'bucket' was structured in three categories and the nine groups of initiatives encountered. For that group of initiatives and categories, the main considerations and findings were as follows:

i. Purpose > Long Term Institutional Commitment:

The initiatives that shaped this category are the ones related to the establishment of strong compromise toward PRME, which encompasses principles of CSR and values of Sustainability, as explained earlier in the topic on concepts. Relevant findings were:

- ✓ The majority of schools have reinforced the connection of their pre-existing mission, values and vision, with the PRME. Among them, some have even

adjusted their mission after becoming a PRME signatory, in order to integrate the concepts and values of PRME in their essential duties;

- ✓ The main terms encountered through the mission, values or vision statements mentioned through the reports were:

- Ethical behaviour
- Education based on ethical values
- Develop students as a responsible, socially sensitive, and globally aware member of society
- Citizenship
- “Business in Society”
- Responsibility as new identity
- Sustainable development as a foundation framework to drive action
- Delivery of the responsible leaders of today and tomorrow
- Sustainable economic value with societal and environmental wellbeing
- Contribute to sustainable development of organisations through the formation of socially responsible leaders
- Leaders with ethical principles
- Commitment to Sustainable Development and a green environment
- Seek innovative solutions to emerging issues of local, national and international importance
- Advocate for Responsible Management Education

- ✓ PRME have been integrated into school strategy in more than half of the schools. And the analysis of reports from the same schools over time suggests that this integration happens as the engagement from a small group is spread-out toward a broader group of stakeholders, despite whether the movement has started from the bottom or the top levels of the school structure;

- ✓ Main terms encountered through information about how schools are integrating PRME into their strategies were:

- Concepts of Sustainability and Responsibility are cornerstones of school strategy
- Incorporation of values of global social responsibility
- Compromise in developing students to be future generators of sustainable value for business and society at large and to work for an inclusive and sustainable global economy
- Commitment to CSR as central pillar of school strategy
- Values of sustainability and future-orientation lead all school decisions
- PRME embedded into school strategy
- To be and develop leaders for a sustainable world through learning transformation, research with impact, and community engagement
- Strategy focusing on business and society, and a profile based on values-based leadership, with focus on social innovation, entrepreneurship, sustainability and emerging markets
- Strategy considers building critical thinking, multi-disciplinary learning, responsible decision makers, high social competences, new knowledge and new action patterns for sustainable development, and ethical norms
- PRME philosophy incorporated as a top priority for school, from strategic plan to everyday action

- ✓ Top-down approaches seen to be little demonstrated through quotes or events in which school leaders reinforce or communicate the school commitment toward PRME or the concepts related. Top-down approaches were also identified by the emphasis given to communicate a high level of school leaders responsible for promoting PRME across the school system.
- ✓ Bottom-up approaches, on the other side, seem to appear as being noticed more often, being represented by different student-driven organisations such as clubs or hubs self-organised or organised by international movements (examples: Enactus Society, Oikos, Net Impact). These student groups have direct engagement with social and environmental initiatives and influence the school community to participate, to raise awareness on the subjects, and get involved.
- ✓ Top-down approach appears to have more frequency in the schools that have integrated PRME into their strategies (83%) than the ones that have only aligned mission/values/vision (50%), which suggests that changing strategy has a potential influence on the top-down approach;
- ✓ The bottom-up approach appears to be more common in the schools that have their mission/values/vision aligned with PRME (70%), which suggests that having a mission statement aligned might create a positive condition to raise or for engagement to flourish toward the bottom-up approach.

- ✓ Considering that the majority of the sample is accredited by EQUIS/EFMD (83%), and this entity has required the incorporation of Ethics, Responsibility & Sustainability across different school areas since 2013, the percentage of schools with an aligned strategy (56%) suggests opportunities to increase this representation.
- ii. Purpose > Governance / Resource Allocation:

The initiatives that shaped this category are the ones related to the internal structures created to lead and manage the process of integration of PRME across the school system. Relevant findings from the initiatives encountered in this category were:

- ✓ For all the initiatives identified within this group, most of the schools have not disclosed a defined body, responsible for coordinating PRME across the school system. Despite the type of governance established, the lack of any type overall suggests a fragility of how the process has been coordinated overall, across the institution curricula, research, community and outreach.
- ✓ Considering the few initiatives identified, only some schools have demonstrated an institutional governance body as a core structure in the school administration. Some examples are named 'PRME Office', 'PRME Leadership Team', 'PRME Steering Committee', Sustainability Office with Sustainability Leadership Team', 'Educational Planner to promote PRME in curricula', 'Ethics Committee'.
- ✓ In addition, few schools have showed organisations such as 'Faculty or curricula Committee' with multifunctional members being accountable for promoting curricula and the transformation of pedagogic methods.
- ✓ The last initiative observed, but with very few examples, is related to specific budget or individual resources allocated to the coordination of PRME across the school system, such as a person entitled 'University Sustainability Officer' or 'Educational Planner' for coordination of curricula changes, or even a budget identified as being designated to sustain specific resources in general. It is important to note that these few initiatives are directly dependent on a previous structure or organisation established, that is, they

were only observed in the same schools from the two preceding initiatives mentioned above.

- ✓ The few demonstrations of budgetary or resource planning suggests potential opportunities regarding how institutions demonstrate the way they enable or sustain all activities planned to be promoted over time. According to Setó's studies (2016), it is relevant to establish a budget and resource plan, designated for preparing and executing initiatives and activities to be carried out by the school.

iii. Purpose > Continuous Improvement Process:

For this category, initiatives reflect practices and actions organised and communicated throughout a tracking chart or table, which encompasses past, present and future initiatives, their descriptions, intentions and progress status. The category also includes practices related to the creation of metrics or targets to measure the performance of the initiatives taken. These different formats for presenting and organising information allow for a better view of how schools have committed efforts and developed each stage of their transformational process, and the order in which practices mature as time passes. A broad vision of all practices over a general timeline or through scorecards becomes valuable information about the continuous improvement path along which the school has progressed. Main findings for these groups of activities were:

- ✓ Despite the majority of schools having shared their progress through a linear description of practices under each PRME pillar, it could be observed that a small number of schools (22%) have organised their practices under a tracking table or monitor deck using temporal criteria (such as goals defined in the past, for present cycle, or for future years), attributing accomplishment status (such as partially, totally accomplished, or not initiated), and adding comments regarding learning or challenges involved.
- ✓ Only very few schools (11%) have advanced in translating their long-term efforts and performance results into a scorecard, choosing metrics that could represent the results to be monitored. For this particular initiative , despite its low frequency, represents a valuable resource for the school to

better establish the overall direction of targets to be met and the evolution of its performance over time. According to Weybrecht's study, it is extremely relevant to establish a spectrum of core elements that serves as an assessment or auditing tool capable of translating where the school stands and how it has performed over the years, so it can continuously interact and revise all of its strategies and efforts being planned to move forward.

4.1.2. Value

Table 5 – Result - General Structure of Practices Reported / VALUE

PRME Principles Buckets	Group of Outcomes / initiatives Secondary Buckets	Group of Initiatives encountered in SIPs Primary Buckets	% Frequency
VALUE <i>"We will incorporate into our academic activities and curricula the values of global social responsibility as portrayed in international initiatives such as the United Nations Global Compact".</i>	Institutionalisation of values and principles across school activities and curricula	Formally disseminate guidelines and principles that shape school with a value-based culture.	83%
		Assumes plans to advance SDG across school curricula and activities.	28%
	Faculty and staff engagement and training	Empowerment and incentives for faculty and staff.	72%
	Impact measurement	Use assessment tools to measure results.	44%
		Plan to initiate or advance the use of assessment tools to measure results.	28%
		Communicate the initiatives that have positively supported SDGs.	22%

Note: Author's production as a result of the research process.

The Value 'bucket' was structured in three categories, and eight groups of initiatives were encountered. For that group of initiatives and categories, the main considerations and findings were as follows:

- i. Value > Institutionalisation of values and principles across school activities and curricula:

This category is shaped by initiatives that show a broad list of global guidelines, principles, or subjects related to social value creation being integrated into

the diverse school mechanisms used to shape their culture. The summary of the most frequent terms and mechanisms encountered is as follows:

Global Guidelines and Principles encountered:

- SDG (global agenda)
- PRME (principles, workbook, toolkits)
- CSR (concepts)
- Global Compact (principles)
- Human Rights (principles)
- GRI (concepts)
- Giving Voice to Values (GVV - concepts)
- B Corp (concepts)

Subjects encountered:

- Global Social Responsibility
- Corporate Governance
- Business Ethics
- Gender Balance
- Diversity
- Sustainability Accounting
- Environmental and Resource Economics
- (Global) Social Responsibility
- Balance between profit and social responsibility
- Business in Society

Internal mechanisms used to shape school culture:

- Internal Policies and Procedures (residential and student life programs, internal guide of principles or programs, code of ethics, honour code, institutional governance format, etc)
- Forums, workshops, conferences, competitions
- Mandatory courses or modules
- Assessment tool for businesses valuation
- Material displayed on campus
- Academic journal articles published

Main findings from this category were:

- ✓ The majority of schools explore global principles, guidance, or specific subjects related to social values creation across school mechanisms to shape culture.
- ✓ Only some schools have mentioned their commitment to advancing the integration of SDG into their values-based culture. Considering that SDG are relatively recent to the global debate and many of the reports analysed were published before the launch of SDG, the low frequency of schools in this group of initiatives is not a surprise. But it is important to recognize a trend in which the most recent reports have already shown positive intention to advance SDG in their learning communities.

ii. Value > Faculty and staff engagement and training:

This category is related to all efforts and practices schools have taken toward faculty and staff training, to get them mobilised and capable of creating innovative activities and curricula, new pedagogical approaches, teaching materials, case studies, etc. The process of involving faculty and staff represents a pre-requirement to advancing the transformational change across the school community, curricula, pedagogy and research. Main findings from these initiatives were:

- ✓ A great amount of schools have driven efforts to train and engage staff and faculty.
- ✓ The majority of these schools are the same ones that have invested in the institutionalisation of a values-based culture mentioned in the previous category.

iii. Value > Impact measurement:

This category encompasses practices related to measuring results related to specific goals, those defined for intended learning outcomes. It also considers communication on the impact of specific practices toward SDG. The main findings from this group of initiatives were:

- ✓ Almost half of the schools have used assessment tools to measure intended learning outcomes for curricula and programs that are in place.
- ✓ The assessment tools observed are represented by course evaluation surveys conducted on students, or also by assessment rubrics with defined learning objectives to be applied to students in a self-evaluation process regarding the understanding gained during the course.
- ✓ A small number of schools have attempted to integrate concepts of PRME into the Assurance of Learning¹ (AOL) tool even though they recognised

¹ “Assurance of learning refers to processes for demonstrating that students achieve learning expectations for the programs in which they participate. Schools use assurance of learning to demonstrate accountability and assure external constituents such as potential students, trustees, public officials, supporters, and accrediting organisations that the school is meeting its goals. (...) For Assurance of learning purposes, AACSB accreditation is concerned with broad, program-level focused

that there were some limitations regarding the applicability of this tool over compulsory courses.

- ✓ There are some schools applying the Sustainability Literacy Test² as an alternative tool to measure progress of the learning outcomes aligned with sustainability values.
- ✓ The advance in the use of assessment tools appears to be a consistent trend considering that some schools have considered implementing or advancing them in their future goals.
- ✓ A small number of schools have communicated the impact of their actions and practices establishing a direct reference to one or more Sustainable Development Goals. Despite the lack of a common pattern or format of measurement, the intention to introduce results related to the SDG appears to be a possible trend, considering that the SDG has been recently introduced into the global agenda.

4.1.3. Method

Table 6 – Result - General Structure of Practices Reported / METHODS

PRME Principles Buckets	Group of Outcomes / initiatives Secondary Buckets	Group of Initiatives encountered in SIPs Primary Buckets	% Frequency
METHOD <i>"We will create educational frameworks, materials, processes and environments that enable effective learning experiences for responsible leadership".</i>	Curriculum innovation and redesign to integrate Sustainability values	Sustainability values <u>embedded as a major subject</u> and with a multidisciplinary approach in <u>existing, required management disciplines</u> (strategy, finance and accounting, marketing, operations, human resources, organisational behaviour, leadership, entrepreneurship, etc.), <u>dispersed or concentrated throughout all courses</u> offered. Syllabus revision required.	72%
		Sustainability values <u>structured as stand-alone subjects</u> , as <u>new required and specific disciplines</u> (ethics, anticorruption, environmental context, consumer culture, sustainable development concepts, etc.), <u>dispersed or concentrated throughout all courses</u> offered. New syllabus developed.	61%

learning goals for each degree program, rather than detailed learning goals by course or topic, which must be the responsibility of individual faculty members." (AASCB, 2013)

- ² The sustainability literacy test (SULITEST) is an online multiple-choice question assessment. It assesses the minimum level of knowledge in economic, social and environmental responsibility in 30 minutes, it is applicable all over the world, in any kind of higher education institution (HEI), in any country, for students from any kind of tertiary-level course (bachelors, masters, MBAs, PhD) (United Nations, n.d.)

		Sustainability values structured as stand-alone subjects, as new, elective and specific disciplines (ethics, anticorruption, environmental context, consumer culture, sustainable development concepts, etc.), dispersed or concentrated throughout all courses offered. New, syllabus developed.	61%
		Sustainability values - structured as stand-alone courses, major or minor related to Sustainability and with new required disciplines. New syllabus developed.	56%
		Apply 3 or 4 initiatives above	56%
	Methodology innovation to develop new knowledge, skills, change behaviours and attitudes	(I) Traditional methods: formal lectures; philosophical discussions and dialogues; research papers on Ethics, CSR or Sustainability subjects; newspaper articles; guest lectures; readings; and similar.	44%
		(II) More innovative methods: full length films, videos, music and cartoons; management games and simulations; electronic bulletin boards; case studies but mainly the ones developed by the students reflecting real life dilemmas; class projects; prototyping project scope and possible solutions; and similar.	56%
		(III) More innovative methods through living learning experiences: realistic classroom experiences involving multidisciplinary teams; experimental learning and immersion techniques (e.g., excursions involving eco-tourism, internship programs, foreign visits and programs, community service learning experience); emphasis on Problem-based learning (PBL).	78%
		(IV) More innovative methods through living learning experiences focused on self and contextual awareness: projects involving artistic expression; transdisciplinary classes with theory and practice.	6%
		Apply 2 or 3 initiatives above	72%
	Student support	Provide mentorship programs to support students on their projects and career development with regard to decisions that consider the awareness of their role as responsible social leaders.	56%
		Provide scholarship programs to incentivise diversity in the school community, bringing global students with different cultures, experiences, and perspectives into the community.	28%

Note: Author's production as result of the research process.

The Method "bucket" was structured into three categories and thirteen initiatives were encountered throughout the reports. The categories represent initiatives related to how schools have redesigned their curricula, the pedagogical techniques being used, and possible mechanisms used to create stimulus and engage

students toward the integration of sustainability values across curricula. The main findings from each category were:

i. Method > Curriculum innovation and redesign to integrate Sustainability:

The curriculum innovation and redesign represent an essential stage in the transformational journey on which schools must embark when planning to embed or reinforce the proposal for offering responsible education toward sustainable development. According to the authors previously mentioned in the literature review topic, curricula offerings should reflect subjects related to values of sustainability. Setó's and Rusinko's studies have presented different types of tactics with which curricula might be approached in order to integrate sustainability. The different aspects and tactics were then explored in this category in order to identify to what extent schools have advanced in this area. The main findings encountered were as follows:

- ✓ A great amount of schools have embedded sustainability values into existing disciplines from the core courses offered. Frequent subjects mentioned as integrated concepts were: responsible leadership, CSR, social and environmental issues, global citizenship concepts, sustainability awareness, sustainability thinking, global and local challenges, the ethical foundations of a business, PRME, microfinance for social inclusion, codes of conduct, natural justice, gambling fraud, sensitiveness to social, economic and environmental responsibility, global and local dimensions for social challenges, among others. The embedded subjects have been integrated into existing, required management disciplines such as strategy, finance and accounting, marketing, operations, human resources, organisational behaviour, leadership, and entrepreneurship.
- ✓ Many schools have offered stand-alone subjects as a required discipline such as ethics, anticorruption, environmental context, consumption culture, sustainable development concepts, corporate governance, sustainable corporations, responsible leadership, business practices for sustainability, environmental management and governance, among others.
- ✓ Many schools have offered stand-alone subjects as an elective discipline such as the same examples mentioned in the previous topic.

- ✓ More than half of the schools have offered stand-alone courses, major or minor, specialised or related to Sustainability.
- ✓ More than half of the schools have applied three or four of the above initiatives, meaning that all approaches are complementary and should be applied according to specific learning outcomes, defined as mandatory, optional, embedded through a multidisciplinary approach, or integrated through a stand-alone approach.

ii. Method > Methodology innovation:

Methodology innovation has also appeared as a common initiative being advanced by schools on their transformational journey to integrate sustainability across curricula. Considering that sustainability by itself presents a multidimensional aspect, involving contexts of both complexity and uncertainty, new pedagogical tools for teaching and engaging students have been considered to provide different learning experiences through a more interactive exchange of knowledge and practices, according to specific, defined learning objectives.

Considering the influence of Setó's study (2016), mentioned earlier in this work, all initiatives related to learning methods encountered across the reports were organised into four different categories, from the most traditional methods to more innovative ones. Each of them attempted to represent the following learning objectives:

Special attention should be given to the third and fourth methods mentioned above, because both are related to cognitive, affective and behavioural learning processes, with central relevance in education for sustainability according to Setó's study (2016). For Setó, these instrumental methods represent the heart of sustainability and should be broadly explored in order to promote changes in

behaviours and attitudes. However, they offer relative challenges when being applied to senior students in higher education institutions.

- (I) Traditional methods: formal lectures; philosophical discussions and dialogues; research papers on Ethics, CSR or Sustainability subjects; newspaper articles; guest lectures; readings; and similar.
Learning objectives → Expand knowledge and awareness on new subjects, acquire new perspectives.
- (II) More innovative methods: full length films, videos, music and cartoons; management games and simulations; electronic bulletin boards; case studies but mainly the ones developed by the students reflecting real life dilemmas; class projects; prototyping project scope and possible solutions; etc.
Learning objectives → Expand knowledge, awareness and stimulus regarding new subjects, acquire new perspectives, and new sensations through simulations and interactions, understand new contexts.
- (III) More innovative methods through living learning experiences: realistic classroom experiences involving multidisciplinary teams; experimental learning and immersion techniques (e.g. excursions involving eco-tourism, internships programs, foreign visits and programs, community service learning experience); emphasis on Problem-based learning (PBL).
Learning objectives → Become mobilized to and sensitive with multiple disciplinary perspectives, different dimensions, with tense, complex interaction, become sensitive to local and global issues., create innovative solutions based on inter and transdisciplinary approaches, practice reflective observations and abstract conceptualisation.
- (IV) More innovative methods through living learning experiences focused on self and contextual awareness: projects involving art expressions; transdisciplinary classes with theory and practice.
Learning objectives → Explore and sense the self-dimensions and their relation to the external context through time and under affective relations, expand the comprehension of individual influence toward context, and vice-versa.

Main findings for this category were:

- ✓ The most frequent method observed through reports has been related to group III, it referred to “More innovative methods through living learning experiences”, followed by group II, “More innovative methods”.
- ✓ Less than half the schools have mentioned the use of traditional methods to integrate sustainability into learning.
- ✓ Results suggest that new methods of learning have been advanced to create or improve sustainability values through the learning journey. The traditional methods might not be enough in order to promote the outcomes expected in terms of attitudes and behavioural changes.

- ✓ A very restricted number of schools have shown initiatives in reference to group IV, applying “More innovative methods through living learning experiences focused on self and contextual awareness”. Despite the limited representation, this particular group was kept in the framework due to its critical relevance to the development of affective, and emphatic relations through experimental learning, and the development of transdisciplinary knowledge generated based on the interception of different perspectives and dimensions under both the self, and collective comprehension.
 - ✓ Many of the schools have applied two to three methods mentioned above, which suggests they have been applied through a complementary approach, considering the learning objectives to be achieved.
- iii. Method > Student support:

This group of initiatives attempts to represent programs which support students in orienting their decisions or provide educational opportunities for minority social groups. Main findings under this category were:

- ✓ More than half of schools offer mentorship programs to support and encourage students through reflections that leverage their comprehension over the role of leadership in society.
- ✓ Some schools have offered scholarship programs as a means of incentivising and supporting minority groups and creating diversity in student bodies.

4.1.4. Research

Table 7 – Result - General Structure of Practices Reported / RESEARCH

PRME Principles Buckets	Group of Outcomes / initiatives Secondary Buckets	Group of Initiatives encountered in SIPs Primary Buckets	% Frequency
RESEARCH <i>“We will engage in conceptual and empirical research that</i>	Increasing Publications, Presentations, and Projects	Continuously present an increasing amount of publications and presentations with subjects related to PRME, the main topics explored, and the percentage of them related to all publications and presentations being generated by the school.	78%

<i>advances our understanding about the role, dynamics, and impact of corporations in the creation of sustainable social, environmental and economic value”.</i>		Development of interdisciplinary research projects with direct or potential impact in social and environmental responsibility challenges under local, national, regional or global context.	61%
	Centre of Study in CSR and or Sustainability	Centre of Study in CSR and or Sustainability, responsible for influencing and generating research projects beyond school boundaries.	78%

Note: Author's production as result of the research process.

The Research “bucket” includes two categories, one related to the publications, presentations and projects being produced by the schools, and another related to study centres acting as pivotal structures, to lead research projects that explore subjects related to Social Responsibility or SD issues through a cross-disciplinary approach and involving stakeholders beyond school boundaries. Main findings encountered through reports for these categories were described below.

- i. Research > Increasing publication, Presentations, and Projects:
 - ✓ Many of the schools have demonstrated a growing list of materials being generated by students and faculty in the form of publications, presentations and works in progress.
 - ✓ Many schools have presented a broad spectrum of research projects involving themes related to Social Responsibility or SD issues. Some of the common patterns encountered through the projects found in this initiative involved cross-disciplinary groups of research, college collaboration, and multi or interdisciplinary team work.
 - ✓ A curious fact observed among all kinds of subjects being explored through projects is that some have focused on creating impact measurement indexes or models. This reveals relevant efforts from academia to provide possible solutions to private and public organisations with models for measuring social and environmental impacts and results, representing a field of opportunity for corporate and governmental practices and initiatives involving SDG.
 - ✓ Despite the effort of sharing a list of publications and presentations, few schools have translated the information into performance ratios, such as the total quantity of material being generated yearly, or either the percentage of

articles or research projects being published or implemented yearly considering subjects related to Social Responsibility or SD issues versus the total amount of material being generated by the school. A tracking index or monitor scorecard to map the progress in which material has been generated seems to be a relevant opportunity to most schools.

- ✓ Among many initiatives encountered in this category, schools have mentioned supportive strategies being applied such as investments, incentive programs and awards, in order to promote and advance publications, presentations and research projects related to Social Responsibility or SD issues.
- ii. Research > Centre of Study in CSR and Sustainability related subjects:
- ✓ Many schools have a structured research centre, focused on different fields of study related to Social Responsibility or SD subjects and challenges.
 - ✓ Centres of study have played a central role in promoting a broad spectrum of research projects, generating rich material to be applied in curricula, as well as developing new models and solutions for real challenges, faced by organisations, governments and communities, locally and globally.

4.1.5. Partnership

Table 8 – Result - General Structure of Practices Reported / PARTNERSHIP

PRME Principles Buckets	Group of Outcomes / initiatives Secondary Buckets	Group of Initiatives encountered in SIPs Primary Buckets	% Frequency
PARTNERSHIP <i>"We will interact with managers of business corporations to extend our knowledge of their challenges in meeting social and environmental responsibilities and to explore jointly effective</i>	College and business collaboration for multidisciplinary and cross-cultural experiences	Create and/or participate in college collaboration efforts to offer multidisciplinary courses through a specific certification program which combines different perspectives from different students, with joint skills and knowledge, to develop projects related to PRME during the course.	72%
		Provide foreign courses related to PRME with experimental and service learning in different global contexts.	67%
	Co-curricular and extra-curricular activities for real life experiences for	Programs for consulting services, volunteer services and internships with business, government, NGOs and/or community.	89%

<i>approaches to meeting these challenges”.</i>	students, faculty and staff	Competitions, awards, incentives and sponsorship for student participation in social programs, labs and projects.	83%
		High-level executives or entrepreneur participation in dialogue programs or seminars with students to explore real life dilemmas related to triple bottom line concepts applied to decision making.	39%
	Participation in groups, associations, boards, events and communication vehicles	Member of boards, groups or associations, influencing systems and agendas among external stakeholders; actively participating in conferences and meetings, exchanging best and innovative practices.	94%
		Use of communication vehicles to disseminate subjects and projects related to PRME, SDG, CSR, and similar.	11%
	Diversity in campus	Establish partnerships with organisations to enhance diversity in school communities, among staff, faculty, and students.	33%

Note: Author’s production as result of the research process.

The Partnership “bucket” is divided into four categories and eight groups of initiatives, as explained through the following topics.

- i. Partnership > Colleges and businesses collaborate for multidisciplinary and cross-cultural experiences:

This first category encompasses different arrangements of collaborative efforts among universities and organisations toward multidisciplinary and cross-cultural courses, visits, and research projects. Main findings encountered through its initiatives were:

- ✓ Many of the schools have established or participated in college collaboration efforts to support or maintain research centres, promote research projects or courses, all based on a cross-disciplinary approach. The collaboration involves the formation of a multi-cultural teams joining efforts and different knowledge, in order to work together toward potential solutions for the challenges related to Social Responsibility or SD issues.
- ✓ More than half of the schools have participated in joint groups of schools in order to offer foreign courses or visits to promote cross-cultural experiences and service learning practices, expanding awareness regarding global issues.

- ii. Partnership > Co-curricular and extra-curricular activities for real life experiences for students, faculty and staff:

This category explores a broad range of initiatives related to co-curricular and extra-curricular activities, promoted or supported by the school through partnerships with private or public organisations, and even community groups, in order to offer real life experiences to students as well as to faculty and staff. Main findings regarding these activities are as follows below:

- ✓ The great majority of schools have offered real life experiences to their school community through consulting services, volunteer assistance services, internship programs and visits to private and public organisations. Those activities appear as either co-curricular or extra-curricular, promoted within businesses and non-business collaboration.
 - ✓ Many schools have established partnerships with different entities locally and globally, in order to promote competitions for business cases or projects focused on subjects related to Social Responsibility or SD issues, done in collaboration with businesses and non-profit organisations. Some partnerships involve the collaboration of business leaders or entrepreneurs who can participate in project mentoring processes, judging proposed final models, and supporting research. Others involve the endowment of rewards, sponsorship, investments or resources to support project planning and or implementation.
 - ✓ Some schools have established partnerships with different organisations, promoting dialogue events with high-level executives or entrepreneurs, so they can share life experiences related to dilemmas and decision making. Subjects explored during dialogues consider real interactions and tensions among social, environmental and economic dimensions in global and local contexts. Exchange of experience also appears through programs of mentoring provided by executives and entrepreneurs for students focusing on their career decision dilemmas or on their role as responsible leaders.
- iii. Partnership > Participation in groups, associations, boards, events and communication vehicles:

This category refers to initiatives in which school members actively take part in community or business groups, associations, consortiums, boards, events and communication vehicles in order to influence external stakeholders and collaborate on agendas regarding Social Responsibility or Sustainable Development issues. Main findings from this category were:

- ✓ The great majority of schools have members of boards, community or businesses associations, or school consortiums as their leaders. This is to influence and collaborate with common agendas related to PRME concepts and challenges. Considering the configuration of the school sample, all of them being members of the PRME Champions Group, the majority are members of working groups involved in specific projects under SDG challenges.
- ✓ A small amount of schools have used communication vehicles to disseminate subjects and projects related to PRME concepts and challenges in order to influence a broad range of potential stakeholders.

iv. Partnership > Diversity on campus:

This category refers to a unique group of initiatives related to partnerships with the intent of leveraging the diversity of students, staff and faculty across school community. The main finding regarding this initiative is:

- ✓ Some schools have established partnerships with specialised foundations or associations in order to prioritise minorities or less privileged groups during the attraction, selection and protection procedures of the candidate in order to guarantee diversity across students, staff and faculty bodies.

4.1.6. Dialogue

Table 9 – Result - General Structure of Practices Reported / DIALOGUE

PRME Principles Buckets	Group of Outcomes / initiatives Secondary Buckets	Group of Initiatives encountered in SIPs Primary Buckets	% Frequency
DIALOGUE (with stakeholders and society) <i>“We will facilitate and support dialog and debate among educators, students, business, government, consumers, media, civil society organisations and other interested groups and stakeholders on critical issues related to global social responsibility and sustainability”.</i>	Incentivise and support living- learning community activities on campus	Host and promote conferences, forums, workshops, celebrations to dialogue on topics related to social and environmental responsible leadership, involving different stakeholders from local and global communities and with a cross-disciplinary approach.	94%
		Incentivise internal student communities to promote dialogues and activities on topics or projects related to social and environmental responsible leadership.	56%
		Sponsor marketplaces for social innovation projects developed by either students or school community.	56%
	Stakeholders continuously perception	Conduct questionnaires or interviews with school stakeholders (student, staff, faculty, civil society of school community, businesses, non-profit organisations, other schools) regarding subjects of interest and perceptions of local and global challenges.	33%

Note: Author's production as result of the research process.

The Dialogue “bucket” represents initiatives that shape a culture of constant interchange of ideas, knowledge, perception and perspectives, focused on topics related to PRME and SDG, involving a broad range of stakeholders and with a cross disciplinary approach. Those initiatives can be promoted by schools hosting and organising different events on campus, as well as by self-driven student organisations. This “bucket” also contemplates initiatives related to the creation of favourable conditions and contexts, such as marketplaces, labs, and incubation spaces, in order to encourage innovative projects and practices related to Social Responsibility or SD challenges. Initiatives encountered in this bucket were organised into two categories and five groups of initiatives, as summarised below.

- i. Dialogue > Incentive and support living-learning community activities on campus:

The Dialogue “bucket” represents initiatives that shape a culture of constant interchange of ideas, knowledge, perceptions and perspectives from different stakeholders. The main findings from this category were:

- ✓ The great majority of schools have invested in hosting events such as workshops, seminars, forums, celebrations, presentations, etc, in order to promote dialogue regarding Social Responsibility or SD challenges.
- ✓ Many schools present student-driven organisations that develop projects and community services related to Social Responsibility or SD challenges.
- ✓ More than half of the schools have invested in spaces such as marketplaces, labs or incubator systems which promote and incentivise the creation of social projects.

ii. Dialogue > Stakeholders opinion assessment:

This category reflects initiatives in which schools have paid attention to continuously understanding the perspectives and expectations of their different stakeholders, such as corporations as employers of students, faculty as teachers of students, and students themselves as the centre of the transformational change expected to be advanced. Main findings regarding this group of initiatives were:

- ✓ Only a small number of schools have applied surveys or assessment tools in order to understand stakeholder expectations and perspectives, regarding not only subjects related to Social Responsibility or SD challenges, but also regarding learning methods, curricula structures, changes needed for leadership behaviours and attitudes, value-driven approaches, school responsibility and roles for society at large, etc.
- ✓ The small number of initiatives in this group suggests an important opportunity considering the relevance of understanding the perceptions of stakeholders, which might provide the school a self-evaluation on a broad range of performance and opportunities indicators.

4.1.7. Operations

Table 10 – Result - General Structure of Practices Reported / OPERATIONS

PRME Principles Buckets	Group of Outcomes / initiatives Secondary Buckets	Group of Initiatives encountered in SIPs Primary Buckets	% Frequency
OPERATIONS <i>"We understand that our own organisational practices should serve as an example of the values and attitudes we convey to our students".</i>	Assume responsibility for the social and environmental impact of the school ("Walk the walk", or "Lead by Example")	Create and participate in programs, projects and initiatives involving the reduction of the environmental impact of the school and leveraging social well-being conditions across the school community and its surroundings.	89%

Note: Author's production as result of the research process.

This last "bucket" from the framework corresponds to initiatives in which schools invest attention and efforts to create and participate in programs related to environmental footprint reduction, climate change challenges adaptation and mitigation practices, ethical and fairness standards in social relations, etc. Main findings from this group of initiatives were:

- ✓ The great majority of schools have shown practices for transforming the campus into a more sustainable atmosphere, regarding not only environmental conditions but also social conditions.
- ✓ Schools have mentioned projects, plans and strategies related to building or reforming infrastructures that embrace sustainable values in terms of energy and water consumption, waste and recycling management, transportation models, green area preservation, and well-being conditions for the school community.
- ✓ Other projects and plans encountered were related to social well-being conditions regarding ethical issues such as gender balance, minorities inclusion, and the establishment of a more cooperative culture within the school community and its surroundings. Campaigns and programs to promote healthy and safety habits, accept and respect diversity, or maintain training and development of staff and non-academic groups were also encountered as examples among initiatives related to this category.

- ✓ In addition, there were also projects with focus on incentivising and creating fair trade relations among school stakeholders, as well as establishing environmental and social criteria for previously existing school services, and contracts for material suppliers.
- ✓ Certifications, such as ISO 14001³ and ISO 26000⁴ appeared in some school reports, these certifications suggest a high level of commitment to international standards, with regards to both environmental and social conditions.
- ✓ Another certification encountered, also in a small number of school reports, refers to the Ashoka Changemaker Campus⁵, a type of label for leading institutions in social innovation and changemaking in higher institutions.

4.2. Connections Between Result and Classification Criteria

Some analyses applied over the initiatives frequency encountered across schools showed the following findings:

- ✓ Considering the number of initiatives encountered in each school, the maximum, minimum and average ratios obtained show that, on average, schools present 51% of all initiatives described in the framework. The maximum amount of initiatives represents 77% of the framework, while the minimum represents at least 27%:

³ The ISO 14000 family of standards provides practical tools for companies and organisations of all kinds looking to manage their environmental responsibilities (ISO, n.d.).

⁴ ISO 26000 provides guidance on how businesses and organisations can operate in a socially responsible way. This means acting in an ethical and transparent way that contributes to the health and welfare of society (ISO, n.d.).

⁵ According to AshokaU's website definition, "Changemaker Campuses empower students and all university stakeholders to be changemakers, to firmly embed changemaking into their culture and operations, and work to address both local and global challenges. They are re-envisioning the role of higher education and the university in society as major drivers of social impact" (AshokaU, s.d.).

Ratios of Initiatives Encountered / School	School initiatives / Total framework initiatives
MAX	77%
MIN	27%
AVERAGE	51%

Figure 22 - Ratios of initiatives encountered considering the total framework initiatives
 Note: Author's production as result of the research process.

- ✓ Considering the level of complexity of each school in line with the classification criteria previously explained in this work (High, Medium and Low complexity levels), schools with a more highly complex structure have shown higher incidence of initiatives, considering all initiatives from the framework proposed. It could suggest that schools with higher levels of complexity also demonstrate more resources to promote and fund numerous activities.

Structure Complexity Levels	School initiatives / Total framework initiatives
○ ● LOW	48%
● MEDIUM	44%
● ● HIGH	58%

Figure 23 - Percentage of initiatives encountered per level of complexity in the school structure
 Note: Author's production as result of the research process.

- ✓ When focusing on schools with lower complexity, the groups of initiatives with higher frequency were encountered under the Research, Partnership, Dialogue and Operation "buckets". Applying similar observation to schools with higher complexity, all "buckets" show high occurrence of initiatives.

Structure Complexity Levels	School initiatives / Total "bucket" initiatives						
	PURPOSE	VALUES	METHODS	RESEARCH	PARTNERSHIP	DIALOGUE	OPERATIONS
○ ● LOW	27%	47%	50%	53%	60%	70%	80%
● MEDIUM	33%	37%	43%	73%	50%	40%	100%
● ● HIGH	40%	52%	59%	83%	69%	66%	88%

Figure 24 - Percentage of initiatives encountered per level of school's structure complexity and per "bucket" of principle

Note: Author's production as result of the research process.

- ✓ Despite the lower incidence of initiatives for schools with lower complexity in their structures, the representation of these schools in the following initiatives showed a percentage above their sample representation ratio:

Table 11 – Initiatives encountered with higher percentage in schools with lower structure complexity

PRME Principles Buckets	Group of Outcomes / initiatives Secondary Buckets	Group of Initiatives encountered in SIPs Primary Buckets
PURPOSE	Long Term Institutional Commitment	Pre-existing mission/vision/values of the school aligned to PRME or adjusted after becoming a signatory.
VALUE	Faculty and staff engagement and training	Empowerment and incentives for faculty and staff.
METHOD	Curriculum innovation and redesign to integrate Sustainability values	Sustainability values <u>structured as stand-alone subjects as new elective and specific disciplines</u> (ethics, anticorruption, environmental context, consumer culture, sustainable development concepts, etc.), <u>dispersed or concentrated throughout all of the courses</u> offered. New syllabus developed.
	Methodology innovation to develop new knowledge, skills, and change behaviours and attitudes	(II) More innovative methods: full length films, videos, music and cartoons; management games and simulations; electronic bulletin boards; case studies but mainly the ones developed by the students reflecting real life dilemmas; class projects; prototyping project scope and possible solutions; and similar. (IV) More innovative methods through living learning experiences focused on self and contextual awareness: projects involving artistic expression; transdisciplinary classes with theory and practice.
	Students support	Provide scholarship programs to incentivise diversity in the school community, bringing global students with different cultures, experiences, and perspectives to the community.
	Partnership	
PARTNERSHIP	Participation in groups, associations, boards, events and communication vehicles	Use of communication vehicles to disseminate subjects and projects related to PRME, SDG, CSR, and similar.
	Stakeholders continuously perception	Conduct questionnaires or interviews with school stakeholders (student, staff, faculty, civil society of school community, businesses, non-profit organisations, other schools) regarding subjects of interests and perceptions toward local and global challenges.

Note: Author's production as result of the research process.

4.3.A Multi-Dimensional View of The Framework Output

The results presented above, with all of the initiatives observed and organised into different categories, and under each principle, represent valuable output

by themselves. In addition to the structure presented, through a linear or descriptive version, results gathered through the long quality evaluation of data suggested that the effective value of each initiative is related to the connection or the complementary function it establishes for other initiatives when being implemented. To better explain this connection, there were practices attached to a single group of initiatives, and others attached to more than one group of initiatives at the same time, meaning that they present a multi-dimensional function among the different principles of the framework. It suggests that single function initiatives are more likely to be compared to ad hoc practices while the multi-dimensional ones establish broader influence being compared to strategic practices, planned to either effectively change, or transform complex systems.

Under a similar observation, it was noted that some practices act as enablers for others, with a suggested interdependence among them. As an example, when subjects are integrated into a strategy, there are more incidences of top-down approaches for the same subjects. Initiatives with interdependent relations present a function that extends toward different dimensions, also representing multi-dimensional connections among different principles.

In order to better represent the valuable multi-connections established by multi-functional and interdependent initiatives, a multi-dimensional version of the framework was created aiming to better represent not only the group of initiatives, but mainly all possible connections they can establish in order to effectively change school systems encompassing all its dimensions.

To assemble this additional version of the framework results, groups of principles were combined together in three different dimensions, as shown in Figure 24. And the initiatives referring to each group of principles were distributed in each of the dimension “zones” in an aleatoric fashion. The categories, encompassing a group of initiatives from the general view of the framework results, were also described, besides each dimension, in order to reference the main groups of initiatives encountered in that “zone”. The connections made between all initiatives suggest multiple potential connections among them, giving the idea of interdependence or complementarity. The following figure summarises this multi-dimensional version.

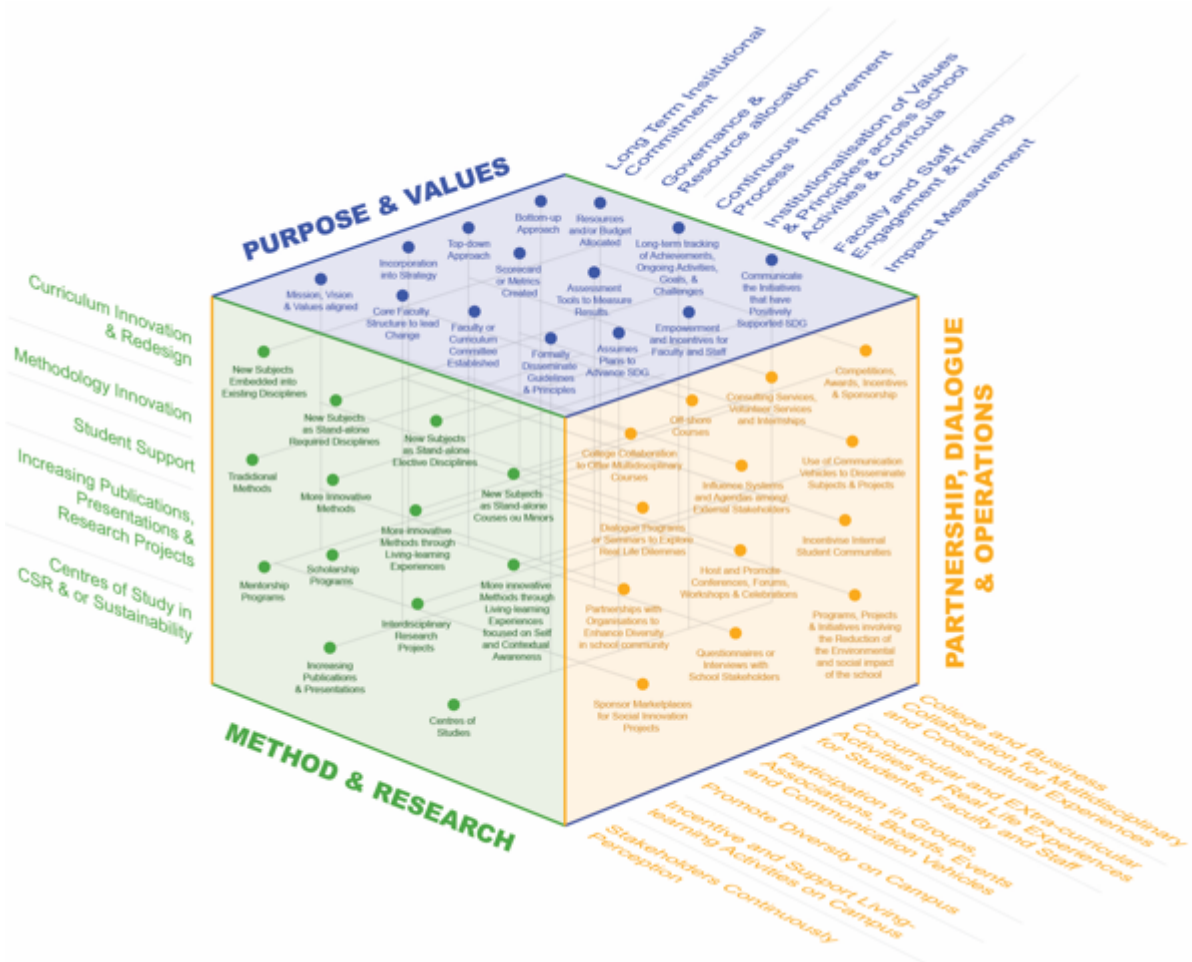


Figure 25 - Multi-Dimensional View of the Framework Output

Note: Author's assembly using components of the framework resulted from the research.

5. Discussion

For the past five decades, the progressive discussion of new challenges in Sustainable Development has triggered many movements around the world, with the intention of mobilising a growing number of institutions to get involved and assume more responsibility for SD. The Global Compact and the PRME Community are examples of movements that have encouraged changes in the way business institutions and business schools operate. Changes in the way schools operate seem to be a critical in enabling change in the way society comprehends and acts in line with SD concepts and challenges.

Understanding their responsibility, many schools from all over the world have raised awareness and increased involvement to promote change in their educational system in order to meet the needs of society and move SD forward. However, despite considerable progress, the pace in which schools have been getting involved and fostering change seems to be slower than the pace in which new challenges have threatened global civilisation. This slow pace can be seen in the many barriers through which schools have had to struggle to effectively get involved and promote change. Among all of the barriers previously mentioned in this work, there are the ones related to the uncertainty of the efforts and procedures required to effectively infuse principles and concepts of Sustainable Development throughout the educational model. The lack of a detailed guide or recipe to support schools in promoting change appears to be a potential opportunity to explore.

Existing frameworks have supported schools with possible approaches to the advancement of change. Frameworks such as the ones mentioned previously in this work have proposed steps and aspects that should be considered to effectively move SD forward, across educational models. Despite their specific focus or perspective, each serves as a positive and complementary reference to guide schools toward change. However, all these frameworks lack practical examples from schools that have already advanced, exploring what and how they are advancing, or to what extent they have advanced in praxis. This research then serves as a complement to the existing frameworks, providing a practical reference of how schools have effectively promoted change, considering a sample of institutions commitment toward the transformational journey – the PRME Champions Group. Results from the framework

offered a large list of initiatives being implemented by schools, as described in the previous topic. Besides the description of them, it is important to explore other aspects related to them.

When exploring results per school, for example, some important aspects to note are that none of the schools have actually presented the entire amount of initiatives described. The maximum of initiatives encountered per school covered 72% of the framework, while the minimum covered 27%. This large difference suggests that even in a group of schools with more experience and higher commitment toward change, there have been different approaches and levels of maturity among them. However, considering that, on average, schools have encompassed at least 51% of the whole framework, it could be argued that schools in general have promoted change through a systematic approach, investing efforts in different dimensions and areas, instead of focusing on specific areas or departments.

Analysing another aspect of the results per school, when comparing the amount of initiatives encountered among schools with different levels of structural complexity, there is a slight difference between schools with higher and lower complexity levels. While the former ones embrace 59% of initiatives on average, the latter ones embrace 49%. Even though it is a small difference, it could be argued that schools with a higher degree of complexity in their structure tend to have more resources available to promote and support initiatives, organisational structures and projects. However, considering that the difference is not too large, it is important to conclude that changes can be approached and advanced by schools with all kinds of structure complexity, operating as an independent structure or dependent on a larger institution, being a private or state-run institution, with a large or small number of students, broad or narrow fields of study, with a large or small faculty involved. In one way or another, results suggest that changes have been advanced across all different types of institutions.

Exploring some aspects of the results, those related to each initiative in particular, they show that while some initiatives were encountered frequently across all schools, others appeared less frequently. When initiatives appeared more frequently it appears to suggest that they might be easier to implement, or they had already been part of school culture even before the journey toward transformation had started, or

they are a very important enabler to the rest of initiatives, or it could even mean a critical demand from relevant stakeholders – such as accreditation bodies, for example. In one way or another, the high consistency in which they appear in the result suggests they have become a new norm among schools advancing change.

Some of these high frequency initiatives encountered across schools are the ones related to: (1) programs and projects involving reduction of the environmental impacts of schools as well as leveraging the social well-being conditions eventually represented by specific certifications such as ISOs or Ashoka endorsement; (2) hosting or promoting conferences, forums, workshops and other events that promote dialogue and the exchange of knowledge on social and environmental responsible leadership; (3) the participation of school members in boards, groups and associations, actively participating in conferences and meetings in order to influence systems and agendas to move change forward; and (4) programs of consulting services, volunteer services, and internships with businesses, governments, NGOs and in the community. The initiative numbered as (3) might not be a surprise due to the fact that the sample is formed of Champions Group members, who by definition are encouraged to participate in PRME Working Groups, for example, meaning that most of them end up getting involved in groups dedicated to working on specific issues related to SD challenges.

Another relevant aspect when exploring results related to each initiative is that the ones that have appeared far less frequently but are of significant importance to the advancement of change. The low frequency suggests they involve too high a level of investment, effort, complexity or even uncertainty to be implemented. The initiatives with a very low rate of implementation across schools were related to: (1) the planning of budget and resources to support structures or activities related to promoting change throughout the school; (2) the use of scorecards or metrics to measure the progress of the school toward the expected change; (3) the use of communication vehicles to disseminate subjects and projects related to subjects of CSR and Sustainability; and (4) the use of more innovative methods through living/learning experiences focused on self and contextual awareness. Even with low level of consistency among schools, these initiatives were kept in the framework due to their relevance considering concepts defined in existing frameworks and previously explored literature. The same could be said regarding the use of scorecards to

measure the progress of a school toward change. It is essential to measure what things trigger achievements and what outcomes are expected for each initiative, or group of initiatives being taken so that schools could learn from them, as well as to adjust and balance efforts to better approach them over time. A plan for resources and budgeting also seems to be essential according to literature, but few schools have shown long term commitment by taking this initiative.

Now, in order to explore some other general findings around the overall result, let's consider each group of initiatives, grouped by principles. For example, under the principle of 'Purpose', it could be said that a good number of schools has emphasised the connection of their mission, values and visions with social and environmental concepts, and also with the development of students with the character of global citizens. Few have even promoted changes in their institutional statements, this would help guarantee this alignment and reinforce their statements within and beyond the school community. Schools also appear to be integrating social and environmental value creation in their scope, encouraging top-down approaches to disseminate this strategy in school areas. The bottom-up approaches by school communities appear as to be a positive sign of the growing interest of different stakeholders in engagement with SD issues, thus being a relevant influence to pressure the institution to move SD forward.

However, the way schools have settled their governance or have defined resources and budgets to carry out change across institutions seems to be a field of opportunity, considering that only some among them have settled core structures and processes, and few mentioned having planned a budget to carry out change. Despite the opportunities, even considering challenges related to budgets and resources, some interesting initiatives were observed, such as different committees being formed, involving multifunctional members being responsible for carrying out changes in curricula or internal processes aligned with school strategy. The interest in bringing about change can initially be instigated from a bottom-up or even a top-down approach, by a group of people capable of influencing and disseminating common interests across other groups in the institution. But with the maturity and the dissemination of these common interests, it is important to identify both approaches being encouraged, from top-down and bottom-up, so the institution itself can effectively embrace change.

Integrating new concepts into strategy appears, then, as a crucial element in influencing top-down approaches. Aligning missions and vision statements appears to be a foundation for all involved.

Another area with some interesting initiatives is the way schools have monitored the progress of their evolutionary journey, tracking past achievements, ongoing activities and future goals. Despite the fact that not many schools have advanced with these initiatives, some have kept a historic catalogue of practices, establishing a long-term view of the actions being placed and results being monitored. This is a crucial mechanism to learn from past experiences and adjust actions toward better results, maintaining a continuous improvement process of the transformational journey. Types of scorecard and metrics have been rare among schools, as mentioned above, but they could be very valuable, to better drive efforts and measure progress toward the expected change and aligned with strategy.

Exploring initiatives under the principle of 'Value', other patterns observed during the research show that many schools have disseminated guidelines and principles related to SD issues, promoting a values-based culture across their community. Some have already integrated SDG into their disseminated guidelines and principles, supporting the 2030 Agenda. Results also show that schools have provided empowerment and incentives to their faculty and staff as a crucial practice to enable the consistent advancement of change. In addition, some schools have applied - or plan to apply - assessment tools to measure a new set of expected learning outcomes, aligned with new learning subjects and learning experiences. Despite all the efforts toward the practice of measuring outcomes, schools have mentioned that assessment tools have been a considerable challenge in different aspects. While traditional forms of measuring results offer limitations to the effective measurement of outcomes related to behavioural aspects or practical and collaborative performance, possible innovative assessment tools have not been consolidated or formally accepted by school communities yet.

Under the principle of 'Method', considering initiatives involving curriculum innovation and redesign, there are many methods being approached to change curricula. Schools are offering new subjects embedded into existing disciplines, creating stand-alone subjects in new, required or elective disciplines, or even stand-

alone courses or minors, specialised in a set of new subjects to be explored. One way or another, many schools have applied all kinds of approaches in a way that some specific subjects have been embedded, others have been thought of as a stand-alone discipline, some as required, some as elective. So, in general, schools have been advancing all those possibilities, suggesting that the best approach is the one that encompasses all of them.

However, initiatives related to curriculum innovation do not make it clear which specific subjects are in fact explored through each initiative, as well as how many students have been positively influenced by each initiative versus the total amount of students enrolled in the school. This additional information could help to better clarify some of the differences and levels of effectiveness among the complementary initiatives mentioned. Further evaluation would be needed to better clarify differences between and details on these initiatives. For example, it could be argued that subjects such as Ethics have long been embedded into existing core disciplines, whereas Anti-Corruption has only been more frequently integrated into the curriculum as a stand-alone, required discipline for core courses. More specific findings regarding different subjects and methods of integrating them into curricula could then be better explored.

For methodology innovation, the same pattern of schools applying more than one initiative was also encountered in the use of different and complementary pedagogies of teaching subjects related to SD. However, for the different initiatives encountered among both traditional and more innovative ones, the most common methods being applied were the more innovative ones, those using living/learning experiences, considering realistic experiences, involving multidisciplinary teams, experimental learning and immersion techniques with an emphasis on problem-based learning processes. This result suggests that practical experience has become a strong trend among schools, promoting new learning paths. Considering this as a potential new norm to the learning route, it is not a surprise then, that the traditional assessment tools for measuring learning outcomes have become limited or restricted. Traditional assessment tools were designed to measure the different natures of outcomes. Innovative learning methods, involving outcomes more related to cognitive, affective and behavioural aspects will then require new forms of measurement for the new outcomes expected.

For the 'Research' principle, findings show that most of the schools have established study centres related to Sustainability or CSR issues, to focus on influencing and generating research projects both within and beyond school boundaries. Therefore, schools have demonstrated a vast number of publications, presentations and projects being implemented, involving different subjects related to SD and interacting. Some opportunities, encountered in the initiatives related to the publications, presentations and projects, are related to the way schools track or monitor these initiatives related to SD, comparing progress over time and against the total amount of publications, presentations and projects being offered by the school, considering all other existing subjects, different to the ones focused on in CSR or sustainability issues. Monitoring would allow for a better understanding of how schools have effectively advanced the generation of material and knowledge related to SD, in comparison to the traditional subjects studied in the mainstream of the school research approach.

Under the Partnership principle, besides the initiatives with very high rates of occurrence - those related to consultancy programs and volunteer services, internships, and initiatives related to the active participation of school members in boards and associations, there are other initiatives with high rates of occurrence being identified. Some of them are related to college and business collaborations in order to provide multidisciplinary or interdisciplinary courses, foreign courses and real-life experiences that raise awareness of local, national, regional and global challenges. For example, schools from countries at different stages of development and different perspectives on challenges have joined forces to provide knowledge and experience exchanges among their student and school communities. This collaboration provides a valuable source of living/learning experience for students from major developed countries (G7) as well as for students from developing and undeveloped countries. Visits, foreign courses and projects involving problem-solving challenges in under developed regions appear with relevant consistency suggesting a new approach to developing awareness, new cognitive, sensitive and behavioural aspects to form a leadership with the character of a global citizen. Initiatives such as the ones mentioned are particularly important to the commitment established by the schools in their mission and vision statements.

The exchange of experiences across countries and cultures throughout college and business collaboration is a relevant enabler, to be connected to other initiatives related to pedagogic methods of exploring living-learning and cross-cultural experiences, as well as those related to the values, principles and guidelines stated as the school purpose and aligned with its mission statement. The connection and complementary relation among initiatives from different principles - or dimensions – appears to be somewhat crucial to the value of each of them. As well as partnerships between colleges and businesses or governments that provide valuable sources of life-experiences to be used in more innovative living/learning methods, they also connect to a broad field of studies and research in which schools play a relevant role, serving external institutions with new approaches and solutions facing challenges related to SD. Many schools have then increased the number of projects and programs led by their centre of studies, involving different kinds of partnerships with business and government, and other schools, to investigate and test innovative solutions to approach SD challenges in many aspects. Students and faculty are also being involved through curricular, extra-curricular or extra-activities on campus, getting involved in the vast range of projects and programs being offered.

To complement findings under the principle of Partnership, other initiatives were found through dialogues with high level executives or entrepreneurs, with their participation in seminars or programs that allow students to explore experiences in dealing with real life dilemmas involving SD challenges as well as career advice and mentoring. Connections of these initiatives with others related to the 'Value' or 'Method' principles were also identified. Experience with external stakeholders complemented both traditional and innovative pedagogic approaches to learning experiences involving, for example, philosophical discussions and dialogue, guest lectures, mentorship programs focused on specific, real-life projects or career choices involving dilemmas related to the path of responsible leadership. Partnerships with other colleges or institutions have also supported schools by enhancing diversity on campus, through student exchange programs, collaborative courses, or scholarship programs focused on bringing to campus students from different cultures, backgrounds and contexts.

Under the principle of 'Dialogue', besides the effort of hosting and promoting conferences, forums and workshops, already mentioned above as being found to be a very highly consistent initiative, there are other initiatives with good levels of consistency, such as incentives for the development of student communities that promote dialogue and activities on topics and projects related to social and environmental issues. There are also incentives for the development of marketplaces to support the development of social innovation projects by student groups, with faculty and staff as well. These initiatives are intrinsically related to the bottom-up approaches, identified under the 'Purpose' principle, so they also represent the way the school has established commitment toward a new set of responsibilities regarding SD subjects. These initiatives also help when responding to, or complementing, the guidelines and principles being disseminated and encouraged through the initiatives under the 'Value' principles, reinforcing the culture being encouraged through institutional efforts. In some way, these dialogue practices converge with the foundations of the school statements and values-based guidelines. In addition to the initiatives mentioned, with less consistency, there are initiatives related to efforts of questioning and interviewing internal and external school stakeholders, in order to understand their interest and viewpoints regarding school position, responsibilities and performance regarding the many aspects of the role of the institution being expected to meet local and global challenges. Initiatives involving dialogue also connect to all the initiatives from other dimensions of the framework in a way that allows for better perspectives and flow of information on different subjects of SD and also regarding how schools have fulfilled their role in driving SD forward in all aspects of the school model.

The last principle explored, the one related to Operations, has initiatives that have been previously mentioned as being with very high rates of occurrence among schools. They are the ones related to projects, programs and practices focused on either reducing the environmental impact of school campuses or improving social well-being conditions within the school community. They also end up being connected to other initiatives, considering that many projects focused on campus challenges can be also explored in the research initiatives being led by centres of studies or being conducted by student groups. Other initiatives can involve business and other college partnerships to bring innovative solutions to specific challenges, such as recycling programs or better use of resources such as water and energy. Projects being

developed to reduce the environmental footprint of campuses can also be explored under pedagogical approaches related to real-life experiences for students on their learning path. Consequently, many connections among these groups of initiatives with others were also identified as potentially being complementary.

In summary, the diagnosis of the initiatives encountered and assembled under different principles or dimensions approached by schools has brought the idea that more important than each initiative “alone” is the connection each one establishes with many others. Each works as an enabler or as a complement to others. Without establishing a strong mission statement or a strategy integrating the creation of social and environmental values, top-down or bottom-up approaches might not be encouraged. In the same way, incentives and empowerment of faculty and staff in providing training programs and establishing governance to lead SD forward, seem to be critical enablers in advancing the redesign and innovation of curriculum and methodology approaches, as well as creating new extra-curricular activities on campus involving subjects related to SD. College collaborations might also be connected to faculty training and the exchange of best practices, with potential value to the advancement of changes among schools. The establishment of many pathways, of connections, between initiatives from different dimensions brings an idea of complexity to all of them. Besides, it also gives the important notion of complementarity and the collaboration of each to many others.

Considering all of the discussions above, the overall results obtained from the analytical model – or framework —offer two different kinds of contribution. The first is the list of organised initiatives, assembled under principles and categories with the intent of helping schools with valuable references of what kind of practices have been implemented by other schools, those with considerable experience and commitment to driving change forward. Secondly, the research process also delivered an additional contribution when bringing to light the hidden connections existent among many initiatives encountered.

Exploring then, this additional aspect of the results, the framework output was then represented through a multi-dimensional version. This version reinforces the comprehension of change through a systematic approach, representing and emphasising new patterns over traditional ones, such as integration instead of

segregation, shared visions instead of single perspectives, collaboration instead of stand-alone efforts, or collective awareness instead of self-centre interests. In summary, this multi-dimensional version intends to bring the sense of complexity and the value of collaboration, intrinsic facets of a transformational journey and essential elements to approach SD.

To conclude, further research could be applied to complement the documentary analysis through the use of interviews, surveys with different stakeholders, and maybe field visits to the schools evaluated. Considering that this research was essentially structured on documental analysis, it could be argued that, if not represented through the reports evaluated, a lot of information could be missing. One of the assumptions considered in the research was that all school initiatives have been demonstrated through their reports, but it might not be valid in 100% of them considering the lack of standards among reports from different schools and also from the same schools over the years. So other types of method could then complement the documental analyses enriching the results. Enlarging the sample could also complement the research, considering other members of PRME with high a high level of experience or maturity in promoting change, but that are not necessarily part of the Champions Group.

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