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THE EUROPEAN UNION POLICY RESPONSE TO COVID-19: EDUCATION FOR SUSTAINABLE DEVELOPMENT AND AWARENESS OF CLIMATE CHANGE

An analysis of policy documents

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Abstract

Background. Covid-19 has affected almost all areas of public policy. The European Union has activated funding programs and instruments to respond to the crisis triggered by Covid-19 and become resilient. Additionally, interest in education for sustainable development and climate change has increased in recent years (Wals, 2009; Anderson, 2012). However, there is little clarity on what education for sustainable development and awareness of climate change entail (Tilbury & Mulà, 2009) and how the political response to the crisis could change the education sector. **Research question.** How does the EU's policy response to the pandemic invest in education for sustainable development and awareness of climate change? **Methods.** A qualitative research design with a documents analysis was chosen. The population from which the documents were sampled was composed by European Union law and other public documents of the European Union on education for sustainable development and awareness of climate change. The data was collected through ten policy documents. **Results.** Learning for environmental sustainability prevails in EU internal politics, while peace education and Global Citizenship education appear in the EU's external policy action. Furthermore, European institutions are convinced that a systemic change in education is necessary to effectively invest in education for sustainable development and awareness of climate change. Universities, a certain set of knowledge and skills and an education that combines formal, non-formal and informal modalities are believed to be at the center of this systemic change. **Conclusions.** Researchers could consider analysing more documents published by European institutions on education for sustainable development and climate change awareness. Moreover, policies and practices for learning that cross the environmental, economic and social pillars of sustainable development should be further stimulated and supported by Member States.

Key words: education for sustainable development, awareness of climate change, sustainable development, European Union, Covid-19

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INTRODUCTION

This thesis addresses the EU's policy response to the Covid-19 crisis in terms of investment in education for sustainable development and awareness of climate change. It contains the results of a qualitative analysis of some European documents to shed light on the EU response to the pandemic focusing on education and its link with sustainable development. Furthermore, the thesis aims to help researchers show how the EU is investing in practice in education for sustainable development and awareness of climate change.

The idea of education for sustainable development is by no means a new concept. Its roots can be traced back to the environmental education programs that took place in the 1970s (Zhang & Wang, 2021). Interest in education for sustainable development and climate change has increased in recent years, partly attributable to the expansion of funding for education programs addressing these issues (Wals, 2009; Anderson, 2012). Moreover, the search for ways to balance the ecological, economic and social spheres of society has become more than ever a perceived political necessity. Citizens around the world are mobilising to protest inequality, calling governments for gender equality and for action against climate change (OECD & SEGIB, 2019). The political attempt to reconcile the growing world population in developing countries, the great inequalities of wealth and the current environmental problems with those of development resides, according to sustainable development, in the ability of a system to function indefinitely, balancing the ecological, economic and social spheres of society (UN, 2015; Fonseca et al., 2018). Indeed, the current and more consensual approach to sustainable development reflects the idea that a simultaneous integration of ecological, economic and social perspectives is desirable (Martins & Mata, 2006). The goal is a sustainable society, which consists of the goods and services it needs, while conserving natural resources and offering social justice. In this way, the needs

of the present are met without compromising those of future generations (World Commission on Environment and Development, 1987).

In this context, an approach to teaching and learning based on the ideas and principles that underpin sustainability has received increasing attention (UNESCO, 2009). Education has been recognized as an essential tool for achieving sustainability. Indeed, the fundamental role of education in helping to change people's attitudes and behaviours as consumers, producers and citizens, and in enabling them to help shape change, has been recognized at international, national, local, public and private levels.

However, the terminology related to what has been called as education for sustainable development and climate change awareness is still fuzzy and spreads from different approaches (Jickling & Wals, 2019). In addition, Warburton (2003) noted the lack of innovative educational approaches that facilitate true interdisciplinarity, thanks to which the issue of sustainability can be effectively addressed. More generally, UNESCO (2014) lists, among the remaining challenges to realise the full potential of education for sustainable development, the need for more research, innovation, monitoring and evaluation. It therefore calls on citizens from all over the world to undertake this effort. The need to conduct more research is perceived especially in this period of crisis, triggered by the global pandemic of Covid-19. The exhortation, in fact, is more urgent since the implementation of the United Nations Sustainable Development Goals, and in particular the goal relating to quality education and the acquisition of the knowledge and skills necessary to promote sustainable development, could be put at risk (Leal Filho et al., 2020). Furthermore, Covid-19 offers a unique opportunity to assess the ability of organisations to respond to the crisis through the strategies adopted. Indeed, focusing on pandemic responses can lead to a deeper understanding of organisations' response mechanisms and allow for practical suggestions for the future (Janssen & Van der Voort, 2020).

The European Union is an organisation that reacted to the pandemic by promoting narratives, supported by funds. The EU education policy discourse focused on

sustainability is one of the policy responses for the renewal and revitalization of the community project. Despite the limited powers of the EU in education (Alexiadou, 2007), education and training have been declared crucial for the green and digital transitions. More specifically, a revolution in the skills of European citizens would be needed both to respond to Covid-19 and to lay the foundations for a sustainable future (Symeonidis et al., 2021). In concrete terms, funding programmes and instruments have been activated. Those with the largest budget are Next Generation EU and the EU's long-term budget for the period 2021 to 2027. The Erasmus Plus program has also seen its budget increase. It is, indeed, considered strategic to respond to the crisis (Bisciari et al., 2021).

Although the European Commission provides this information, knowledge gaps remain. Indeed, relatively little attention has been paid to analysing the areas of potential opportunity that the crisis could offer to improve policies for the future. The use of climate action to promote sustainable recovery is one of them (Bassot, 2020). Furthermore, according to Zancajo et al. (2022), the role of crises in altering political preferences and promoting policy change processes is well documented in the academic literature. However, it is still unclear what kind of policy change a crisis, such as that generated by Covid-19, might be able to trigger in the education sector. Furthermore, education on sustainability issues requires the development of common and specific objectives and actions. However, a clear vision of what education for sustainable development (Tilbury & Mulà, 2009) and environmental education entail often lacks and is not yet widespread. Moreover, researchers on sustainability education and more specifically on environmental education sometimes fail to cross borders and broaden horizons to contiguous fields (Stevenson et al., 2013). Additional research could help further engage and guide education for sustainable development stakeholders. Finally, the European Commission (2022) recommends that more data be needed to support the implementation, monitoring and assessment of policy challenges and the impact of education for sustainable development and learning for environmental sustainability initiatives. This will ultimately help build on lessons learned and inform decision making.

The following research question was formulated:

How does the EU's policy response to the pandemic invest in education for sustainable development and awareness of climate change?

The research question was formulated to help fill previously identified knowledge gaps. More specifically, it was formulated to enhance the knowledge related to the findings of existing research, to clarify the terminology and to contribute to the advancement of education for sustainable development, clarifying how it is shaped by the EU response to the Covid-19 crisis.

In answering the research question, the thesis is divided into four chapters. Chapter I aims to outline the theoretical framework that will serve as a lens for all subsequent chapters, especially the empirical one. Elements of organisational theories and neo-institutionalisms will be extrapolated and explained to create the theoretical framework that best helps to answer the research question. Subsequently, the theoretical framework will be used to guide the analysis of the EU policy response on education for sustainable development and awareness of climate change.

Chapter II deals with outlining a conceptual framework that explains and connects the concepts of sustainability, sustainable development, education for sustainable development and environmental education. To this end, a reconstruction of the literature will be made, outlining the most relevant theories and reconstructing the academic debate around these concepts. The definition of the concepts of sustainability, sustainable development, education for sustainable development and environmental education will then be useful for conducting the empirical research, the results of which will be presented in Chapter IV. Also, in Chapter II the global political phases that have contributed to the emergence and evolution of sustainable development, education for sustainable development and environmental education as ideals and as concrete results of international political activity will be considered. The main sustainability objectives +and targets supported by the relevant policy initiatives will be identified. The focus will be placed on international politics and

policy for sustainable development to clarify the regulatory framework of soft and hard law and the international instruments.

Chapter III will get closer to the specific theme of the thesis and will prepare for empirical research. Indeed, the chapter focuses on sustainable development and sustainability in education in the European Union in response to the Covid-19 pandemic. The treaties and other sources of European law will be used to explore the general theme, role, responsibility and power of the European Union in education. An analytical account of sustainable development and sustainability in education in European Union policies will follow. Much of the chapter will then be dedicated to the description of the European response to the Covid-19 crisis, with a focus on the response strategy adopted in the educational field.

Chapter IV is the last chapter of the thesis. It will illustrate the results of the empirical qualitative analysis conducted to answer the question posed in this thesis on *how does the EU's policy response to the pandemic invest in education for sustainable development and awareness of climate change?* First, the characteristics of each of the ten selected documents will be described. A brief description of the documents' sample, representativeness and external validity will then follow. After the introduction on the context in which the research was conducted, the results of the study will be presented. The results will be reported thematically, and the interconnections will be highlighted.

As this is an exploratory study, a qualitative research method has been chosen (Ritchie et al., 2013). Indeed, one of the essential functions of qualitative research is to explore and capture the perceptions and interpretations of social phenomena as experienced and understood by the participants. An exploratory study helps in understanding values, concepts and norms. In addition, this design was chosen for its greater suitability than the quantitative one in the exploration of narratives and speeches (Boeije, 2009) and thus in answering the question research posed in this thesis.

Furthermore, the analysis of policy documents is an established qualitative research method. Analysis of policy documents offers, according to Cardno (2018), insights

into understanding educational problems in both research and practice. Besides that, the analysis of documents can contribute to the in-depth understanding of individual texts. It was therefore adopted in this study. The suitability of adopting document analysis to study the European Union and its strategic response in various fields was illustrated by Erne (2008) and Cullen (2015). Document analysis was also chosen for the analysis of EU policy proposals, public statements and policy response related to the COVID-19 pandemic (see Burni et al., 2022). Holst et al. (2020) then mention the fact that formal documents occupy a central driving position within educational governance. Therefore, they conducted a document analysis with a key focus on education for sustainable development related documents published within a limited time frame. Also, Hanger et al. (2013) analysed policy documents for climate change adaptation. Finally, Symeonidis et al (2021) applied a document content analysis to study the EU education policy response to the Covid-19 pandemic.

Building on these supporting studies, policy documents will be analysed to answer the research question on how the EU policy response to Covid-19 invests in education for sustainable development and awareness of climate change. The analysis will include the time frame from January 30, 2020 (Covid-19 declared a public health emergency of international concern by the WHO)[1] to the present day. This will help isolate documents published in response to the pandemic. Furthermore, a qualitative document analysis of policy documents published by European institutions after the outbreak of Covid-19 can offer valuable insight into EU policy responses regarding education for sustainable development and climate change awareness. Moreover, combined with elements of organisational theories and neo-institutionalisms (see Chapter I), it can reveal the ways in which concepts have been incorporated and legitimised in Covid-19 response policies.

The population from which the documents were taken was made up of European Union law and other public documents of the European Union on education for sustainable development and awareness of climate change. The documents come

[1] On 30 January 2020, Covid-19 was declared a public health emergency of international concern by the World Health Organisation (https://www.who.int/europe/emergencies/situations/covid-19).

from all European institutions, are written in the official languages of the EU and were published in the Official Journal of the European Union between January 2020 until the present time[2]. They include: EU treaties, preparatory documents[3] (legislative proposals, reports, green and white papers), parliamentary questions, consolidated texts[4], references to national case-law concerning EU law, complementary legislation and legal acts (regulations, directives, decisions, recommendations and opinions). The combination of these documents was chosen to provide deeper and broader knowledge on the EU policy response to Covid-19 in terms of education for sustainable development and climate change awareness that encompasses the complexity of European legislation.

An inclusion criterion for a document to be chosen for this research was the presence in the title or text of at least one of the following words: education for sustainable development, environmental education, climate change education and environmental citizenship education[5]. In addition, other inclusion criteria required documents to be in force, present in the Eur-Lex dataset (https://eur-lex.europa.eu/homepage.html) to simplify the search using a single website and available in English language. A purposive sampling approach was indeed adopted. In this approach, the selection of participants, settings or other sampling units is criterion-based (Mason, 2017; Patton, 2002). The purposive sampling strategy was chosen for its suitability in the research context of the EU policy response to the Covid-19 pandemic, as shown by Symeonidis and others (2021). The strategy for sampling was the following. First, the researcher typed the words listed above into the search bar of the EUR-Lex website, using quotation marks to search for the exact words. Then, the documents that meet the inclusion criteria have been selected and downloaded in their English version.

[2] The last day of research was 5 September 2022.

[3] Preparatory documents are documents that precede legal acts. Some proposals never go beyond the preparatory stage (EUR-Lex website, https://eur-lex.europa.eu/homepage.html).

[4] Consolidation is the integration of a basic legal act and all its subsequent amendments and corrections into a single, easy-to-read document. Consolidated texts have no legal value (EUR-Lex website, https://eur-lex.europa.eu/homepage.html).

[5] These words were chosen because they emerged from the literature review and conceptual framework in Chapter II.

Qualitative data were collected by analysing the political contents of European policy documents. The coding was carried out using the NVivo qualitative analysis software (version 12). A combination of open coding and the use of existing codes, based on the theoretical operational concepts[6], has been adopted. This allowed the researcher to also code relevant information not present in the theoretical framework. Subsequently, axial coding was used to highlight the determinant concepts (Boeije, 2009). The axial codes are those presented in the structured code tree of figure 1 Appendix 1. Finally, through a selective coding process, the connections between concepts were identified, as described in Chapter IV. The relationship codes show the connections found and the positive and negative codes show the enabling factors and barriers to systemic change in education (see figure 2 and figures 3 and 4 in Appendix 1).

At this point, we should also acknowledge some strengths and limitations of the study. To discuss them, the internal validity of this study, the representativeness of the sample of documents and the reliability of the data collection instrument will be considered. Internal validity concerns whether the research truly measures that which it was intended to measure and describe (Joppe, 2000). To strengthen the internal validity of this study, the operationalization of the relevant concepts found in the literature was based on the definitions presented in the theoretical framework. The concepts of education for sustainable development, environmental education, climate change education and environmental citizenship education have been made operational to use them as codes in document analysis. In addition, codes were revised multiple times, to decrease possible bias. However, some concepts have been given a code without having been made operational before. Therefore, the internal validity may have been slightly compromised. To strengthen internal validity, more concepts could have been made operational and more data sources could have been applied.

The representativeness of the sample of documents concerns whether the results of a study can be generalised beyond the specific research context (Boeije, 2009). In the specific case of this research, it is the degree to which the results of the analysis

[6] The definitions of the concepts are present in Chapter II.

of the European documents collected are representative of the entire population of all European documents dealing with education for sustainable development and awareness of climate change. First, the sample of documents is relatively small. Indeed, the data collected consists of only a few documents. Therefore, its representativeness of the population composed of European public policy documents of the various European institutions in the field of education for sustainable development and awareness of climate change could be affected. To address this, documents from different European institutions on various topics were selected to be included in the sample. However, the Council of the European Union and the European Commission are more represented. To increase the representativeness of the sample, more documents from the European institutions could have been analysed and more disparate topics in the field of education for sustainable development and awareness of climate change could have been included. The representativeness of the sample is further explained in the results section.

Reliability of data collection instruments concerns the consistency of the measures used in social research (Boeije, 2009). To increase the reliability of the data collection tool, codes, based on the theoretical framework, have been created for each document in approximately the same manner and format. In addition, attempts were made to choose documents in which the researcher could spend approximately the same time on each topic. However, it happened that some digressions were made on issues deemed relevant only in one document. This may have caused a differentiation between the time spent on certain documents and types of topics, affecting reliability. Furthermore, a document, the Opinion of the European Economic and Social Committee, was only six pages long, compared to an average of thirty-nine pages. This may have had an impact on the reliability of the data collection tool, as the European Economic and Social Committee had much less room to share information than other European actors. To correct this bias, the researcher could have tried looking for another document and trying to gather more information. With these limitations in mind, it is hoped that this thesis will contribute to the study of the EU's policy response to Covid-19 regarding its

investments in education for sustainable development and awareness of climate change.

Chapter I

The theoretical framework

Introduction

This chapter aims at describing the theoretical framework that will serve as lenses for all subsequent chapters, especially the empirical one. To this end, organisational theories and neo-institutionalisms will be presented and discussed. These theories will help to extrapolate the elements that seem to be most useful in answering the question: *how does the EU's political response to the pandemic invest in education for sustainable development and awareness of climate change?* These two theories were chosen in this study because the concepts of responsiveness, responsibility and legitimacy of organisational theories, combined with the importance given to discourse by neo-institutionalists can help achieve the aim of this research. Indeed, to unravel and critically examine the EU policy in education for sustainable development and climate change awareness, it is necessary to examine the response and narratives promoted by the outbreak of the Covid-19 pandemic. To extrapolate the useful elements, the contributions of the authors who have contributed most to the formulation of both organisational theories and neo-institutionalisms and their application will be described.

First, organisational theories will be described starting from their historical origin, following their evolution and describing their varieties. The centrality of the concept of responsibility and legitimacy will also be investigated. Finally, some concrete applications of the theories to the EU will conclude the part on organisational theories.

Successively, the part on the historical, rational choice and discursive neo-institutionalism will begin. The same structure as with the organisational theories will be followed. The three different neo-institutionalist analytical frameworks will then be discussed. Their strengths and weaknesses will be critically reported. The focus will be placed on the description of the characteristics of the discursive neo-

institutionalism analytical framework. Finally, how the authors applied the theory to the EU context using the various frameworks will be discussed.

As a last point, the elements of organisational theories and neo-institutionalism that will make up the theoretical framework will be defined. It will be explained how, why and which analytical tools will be taken from organisational theories and from historical and discursive neo-institutionalism.

1.1. Organisational theories.

Organisational theories concern organisations and originate from the work of authors eager to understand how industrial and commercial entities operate. Indeed, as organisations became more complex, there was a need for their understanding and management. This in turn has led academics to develop theories to increase understanding of politics, policies, and identity formation in developed organisations. One of the major contributors to this literary body was Max Weber with his bureaucratic theory[7]. He is responsible for developing many key concepts, including responsibility, hierarchy, authority, and bureaucracy as characteristics of organisations. Other organisational theories that developed in the twentieth and twenty-first centuries have failed to refute Max Weber's insights (Bush, 2015). These theories are pluralistic, contested, characterised by many competing ideas for attention and stemming from conflicting beliefs about the nature of the organisation (Bolman & Deal, 1991). There are managerial and business ones, where the focus is on planned managerial change, ignoring organisational processes and the employee agency. These theories tend to see the organisation as a rational system, composed of a set of interrelated components in such a way that the behaviour of any component affects the state of the system (Crowther & Green, 2004). Other theories focus on interpretations of history (Leblebici & Shah, 2004) or cultural diversity (Mazur, 2010). Finally, there are authors who adopt the rational approach to the study of organisations. This approach was developed to meet the needs of larger and more complex organisations that were springing up at the end of the

[7] To learn more about Max Weber's bureaucratic theory, see Lutzker (1982).

nineteenth century. The approach assumes that organisations are structures of manipulable parts, capable of being designed appropriately for different purposes (Clegg, 1990).

By the mid-twentieth century there was an evolution of the theories of the organisation. This concerned the awareness that the needs and motivations of individuals must be taken into consideration by organisational theorists to better understand the dynamics governing an organisation. Thus, theories of motivation began to be conceived. Another evolution, connected to motivation theories, concerns the use of the human relations approach to organisational theories. Human relations, motivations and informal organisation have entered the sphere of organisational theories. This was adopted because of the disaffection with the dominant rational approach. Indeed, the latter tended to assume that people all behaved in the same way and there was therefore a single best way to program organisations.

Crowther and Green (2004) argue that organisational theories help scholars to follow development in the social, cultural, political, and ideological contexts in which organisations have developed in different societies. They adopt different theoretical approaches and analyse their interpretation and application to organisations. They also provide a broad framework for assessing the reception and implementation of different types of organisations by people and at different levels. Roberts et al. (2003) add that organisation theories provide a useful lens for understanding what the important components of an organisation are, what their relationship is, and what influence they have on the functioning of an organisation. Common features characterise organisational theories. They are predominantly normative as they advocate how organisations should be led and managed (Bush, 2015). Secondly, they are selective because adopting a theoretical model tends to neglect other dimensions of organisations. Consequently, the search for an overarching theory has failed (Ellstrom, 1983).

The organisation, being the object of the theories, has been defined. A simple and well-accepted definition of organisation is the one proposed by Scott (1998). An

organisation would consist of a group of individuals who work towards specific and agreed goals and whose behaviour would be modified by rules and structure. The organisation is composed of several components such as: the participants, the social structure, the goals, the technology, and the environment. Participants are the people in the organisation; goals are the results that the participants are trying to achieve; the social structure refers to the relationships between the participants; technology refers not only to the machines but also to the procedures adopted in the organisation; the environment is everything that surrounds the organisation.

Several authors have referred to responsive organisation theory and organisational change for their usefulness in exploring how organisations can thrive in uncertain and changing environments. In these theories the notion of responsiveness is central. It is mainly used in the sense of responding or especially reacting to changes in various fields (Beunza & Stark, 2003; Becker & Knudsen, 2005). The term has been used extensively in the business environment. Indeed, Teece and colleagues (1997) mentioned it often in connection with the need for companies to react to change. More generally, it has been adopted to try to explain why some organisations are able to ensure timely reconfigurations of value chain activities and produce positive outcomes (Hoyt, Huq & Kreiser, 2007).

Gärtner and colleagues (2017) provide a more elaborate definition by stating that within organisational theory, responsiveness is conceptualised as a capability that: "emerges from interorganizational practices that draw on organisational, network- and cluster-related structural properties and that are characterised by sensing, responding to, and influencing changes, as well as taking responsibility for (re-)actions that must gain legitimacy" (page 16). Responsiveness is a crucial organisational capability as it would ensure timely reconfiguration of value systems among organisational actors belonging to different levels of governance. The response to changes is given by the ability to seize opportunities and the ability to reorganise the resource base and operational routines. Not only does responsiveness aim to respond to change in a passive way, but also to actively influence it. According to the authors, interorganizational practices aim not only to reconfigure operational routines to respond to change, but also to take responsibility for

organisational (re-)actions and gain legitimacy. Thus, organisations can influence change. The concepts of responsibility and legitimacy make Gärtner and colleagues' definition so useful. Indeed, by stressing the notion of strategic action, the active aspect of response comes into the picture. Both the actions of sensing and of responding attempt to influence change. It follows that the responsibility for these actions is assumed by the actors involved. Legitimacy then follows based on the actions taken.

This idea is also supported by Jacobs (2003) and Ortmann (2010), who argue that responding to change also implies influencing the stakes and taking responsibility for one's response in the eyes of external and internal stakeholders. Whatever the answer - from opposition to affirmation or evolution - it must acquire legitimacy. Legitimacy has been defined as the perception that the actions of an entity are desirable within a socially constructed system of norms and beliefs. Thus, social actors will seek to carry out actions that they perceive as desirable within a system of norms and values (Suchman 1995). Finally, audiences are more likely to provide resources to organisations that seem desirable, appropriate, sensitive to their broader interests or judged as the right thing to do (Parsons, 1960). One way to take responsibility and gain legitimacy is to involve NGOs, government agencies, trade associations, etc. in the decision-making process. In conclusion, sensing, reacting, influencing, and taking responsibility and gaining legitimacy are the distinct but mutually reinforcing components of reactivity.

Furthermore, Ortmann (2010) emphasises the importance of strategies in choosing actions in the face of unforeseen opportunities or crises. Strategies that successfully exploit a change situation require knowledge and understanding of the key factors (Paton & McCalman, 2008). Besides, in these cases, the responsiveness of organisations is mediated by interpretation and language. Being perceptive towards stakeholder concerns and the situation, influencing change by actively shaping it, constitutes responsiveness. Borum (1995) also studied organisational change strategies, categorising them as rational, natural, political, and open. Each strategy has its own purpose, methods, and problems. A rational change strategy focuses on efficiency and uses redesign to drive change. A natural change strategy focuses on

innovation and uses communication and learning. A political change strategy aims at influence and is based on changing control structures. Finally, creativity is at the heart of an open change strategy, in which self-learning is favoured. Organisations are more likely to adopt the strategy that best suits their nature (Morgan, 1999).

Organisational theories have been applied in all their nuances to different cases. The most frequent are management cases (McKinley et al., 1999; Wallace et al., 1999) and those promoting health (Dadich & Doloswala, 2018; Röthlin, 2013). Then there are authors who have applied the concepts of organisational theory to the European Union. First, it is important to remember that the European Union is not a normal international organisation, but a unique type of entity. Indeed, it is not a state, it has developed a unique set of institutions such as, inter alia, the European Commission, the European Parliament, and the European Court of Justice, and has developed a great concern for democracy. It can be seen as a mix of supranational, transnational, trans governmental and intergovernmental structures (Zielonka, 2011). Having elucidated this, Klüver (2012) and Egeberg (2004) adopted the organisational approach to study the European Union and found the following results. Klüver (2012) found that there is no universal ideal organisational structure. Indeed, it is the institutional environment with its internal organisational structures that affects the efficiency of organisations. Different environments lead to different degrees of efficiency. Furthermore, Egeberg (2004) applied the organisational approach to European integration. He wanted to show what an organisational approach has to offer in fields such as committee governance and Commission decision making. In doing so, he found that European organisational structures, their demographics and their degree of institutionalisation influence citizens' preferences and allegiances.

1.2. Historical, rational choice and discursive neo-institutionalism.

The neo-institutionalism theory emerged in the mid-1980s, basing its assumptions primarily on Weber's insights (1978). The theories were developed in response to the 'old institutionalism' that flourished in previous decades, which studied formal

institutions of government using a descriptive methodology, was based on traditional political philosophy and international law, and was mainly atheoretical. Neo-institutionalist theory was conceived as a rejection of a perceived excessive emphasis on agency without structures (Selznick, 1996). Indeed, the theorists of the new institutionalism (Meyer and Rowan, 1977; Zucker, 1977, and DiMaggio and Powell, 1983) have restored importance to institutions, to rebalance their weight. They seek to explain the behaviour of organisations by understanding the higher order contextual effects emanating from broad institutional systems. Furthermore, cultural rules and beliefs take on importance in neo-institutionalism. Indeed, the construction of broader sets of cultural rules and beliefs influence actors and have facilitated the growing similarity of organisations in a sector. Furthermore, cognitive, normative, and regulatory pressures lead to an imperative of legitimacy (Scott, 2008). Subsequently, the change of institutions, as well as the heterogeneity of actors and practices in the fields, began to enter the focus of the theory. Indeed, with the evolution of neo-institutional theory, academic problems have changed, and a wide diversity of concepts and themes has been generated. This has spawned new strands of theorization, which will be discussed below. The theory draws more from sociology and management but also from cognitive and social psychology, anthropology, political science, public administration, international relations, and economics (Lounsbury & Zhao, 2013).

Three different neo-institutionalist analytical frameworks have emerged: the historical one, the rational choice and then the discursive one. The academic literature has identified some problems in the first two. Historical neo-institutionalism and rational choice neo-institutionalism have defined overly deterministic institutions and agents largely fixed in terms of preferences or norms. Therefore, in recent years, scholars have turned to ideas and discourse to give more nuances to institutions and to disentangle preferences and norms. Hence the discursive neo-institutionalism was born, which attempted to challenge the basic premises of the older new institutionalisms. Schmidt (2008), one of the founders of the theory, specifies that the discursive institutionalist approach complements the older new institutionalisms, without replacing them.

A more detailed description of the various approaches will now follow. The historical institutionalist analytical framework is adopted by authors eager to describe what happened in the institutions of interest. The object of analysis is the institution, defined as: "sets of regularised practices with rule-like qualities", external to political actors (Schmidt, 2008, page 4). Some authors have argued that the macro-historical approach tends to emphasise structures and processes, running the risk of neglecting the individuals who created the events. Indeed, historical institutional analysis helps to describe the types of policies implemented in response to some critical situations using the logic of path dependence, but lacks the tools to explain them (Schmidt, 2020). The reason lies in its tendency to be static and focused on balance, thus having a hard time explaining agency and change. This causes some authors to move from the macro-models of historical institutionalism to the rational choice neo-institutionalism, whose focus is on agency and micro-foundations. The rational choice approach lends insights into interest-based incentives and calculations. Institutional actors would base strategic decisions on the rational self-interested calculations, pursuing their own preferences within political institutions, offering incentives (Shepsle, 2006). The rational choice approach works when preferences appear fixed over time and institutions are stable. However, it does not allow to see if a critical moment has occurred and if the policy paths have changed (Van Schaik, 2020). Adopting the rational choice approach would therefore not fit the purpose of this study. Indeed, the relevant actors' recognition of something like a critical juncture and their imagination as to how change might follow are needed to understand evolution in policies. This aspect takes on particular importance in uncertain times when institutions are unstable. Given this situation, it would be simplistic to dwell only on the - often conflicting - interests of the actors, who may not even know what their preferences are. Therefore, Schmidt (2008) believes that only discursive institutionalism can truly solve the problem of non-acting and non-thinking actors and of the subordination of agency to structure.

Discursive neo-institutionalism arises from Rudolph' studies on the interpretative approach (2005) and then continued by Schmidt (see below). The term "discursive neo-institutionalism" dates to recent times (Schmidt, 2002). Indeed, previous

attempts have focused more on ideas than on the interactive processes involved in discourse. It may be useful to adopt a discursive institutionalist analysis for the possibility of integrating the description of the events given by the historical approach with information on who did it and why. The focus is not only on the content of the ideas of the agents of change, but also on the interactive processes that serve to generate, construct, and reconstruct those ideas and on their communication to the public (Schmidt, 2008). In moments of change such as during crises, social actors (re) conceptualise interests, (re) interpret institutional rules and (re) frame norms contributing to the construction of policies and communicative discourses aimed at political legitimacy. As such, discursive institutionalism, combined with historical institutionalism, can help reveal the reasons behind what happened in critical junctures or incremental change by bringing discursive ideas and processes to light.

A discussion of what is meant by ideas and discourse could shed light on the characteristics of the approach. The two concepts are distinct, and their definitions vary depending on the author. According to Schmidt (2008), ideas are the contents conveyed in an institutional context through the interactive process of discourse. While ideas may appeal to interests, values or visions of what is right; discourse can take place between political actors for the construction of policies and programs or between political actors and the public for the presentation and legitimation of ideas. The institutional context is fundamental for the structure, construction, and communication of discourse by the political leaders. Where, when, how and why and, above all, who tells whom something is as important as the content of what is said. Furthermore, ideas can change, affecting the way in which political actors perceive their interests and the environment in which they mobilise. Ideas participate in the construction of political issues and their prioritisation. Then, the ideas are there to help legitimise political choices (Béland, 2010).

Discursive interaction often appears to follow a top-down dynamic. Indeed, political elites would generate ideas, which are then communicated to the public. Subsequently, public debates would be mediated by political elites (Zaller, 1992). Bottom-up processes can also occur as in cases of discursive interactions between

environmentalists, social activists, civil society organisations (Keck & Sikkink, 1998).

The discursive institutionalist approach was applied to the case of the EU agency. There is a lot of discussion in the academic literature about who is driving the change process in the EU. The intergovernmental authors assume that the promoters of change are the leaders of the member states in the Council; while others argue that the Commission and other EU bodies remain in control. Schmidt (2020) conducted another type of study. He first applied a historical institutionalism framework and then a discursive institutionalism framework to analyse the EU response to Covid-19. He found that the limited time available due to the emergency has characterised the strategies and methods adopted by the EU to respond to the pandemic. Indeed, an immediate response was needed in an environment where chaos, disorder, uncertainty, and fear reigned at all levels, institutional and individual. Schmidt goes on to argue that although the EU has found itself in an emergency, its long history of responding to crises has allowed for an accumulation of knowledge about them. According to the author, the situation caused by Covid-19 would produce a paradigm shift towards deeper European integration in some areas, an incremental change in others, or even a reversal towards disintegration in still others. To reveal this, Schmidt stresses the importance of considering the policies implemented, also investigating how, who and why was responsible for them during the pandemic. The pluralist approach suggested by the author as useful in the context of the crisis caused by Covid-19 consists in the combination of historical institutionalism to explore interruptions or continuities in adopted policies and discursive institutionalism to offer insights into the ideas of discursive agents and interactions.

Another argument in favour of using both historical institutionalism and discursive institutionalism stems from the latter's limitations. Considering ideas and discourse cannot explain all changes in each institutional context. Indeed, part of the change is caused by the change in material conditions as the environment and the resources mobilised, which are different from ideas and discourse (Béland, 2010). Policy change is rarely enabled just by ideas. Furthermore, social actors sometimes act

before thinking about what they will say in terms of ideas and discourses (Schmidt, 2010).

1.3. The theoretical framework: elements of organisational theories and neo-institutionalism.

The following elements emerged from organisational theories and neo-institutionalism. They lend themselves to forming the theoretical framework to answer the question of how the EU response to Covid-19 invests in learning for sustainable development and climate change awareness. Starting from the organisation theories, there are some useful elements for this study. On the one hand, dominant organisational norms, rules, and ways of working (Ortmann, 2010) can help to frame the issue of learning for sustainable development in EU policies, highlighting the organisational structure. On the other hand, great importance was given to the concept of responsiveness. Thanks to this concept it is possible to understand that policy makers tend to take responsibility for the policies adopted and aim at their legitimacy (Gärtner et al., 2017). To respond adequately and as required to crises such as the Covid-19 pandemic, responsibility and legitimacy are to be considered. In this sense, the European Union, as a particular supranational institution, must respond to the organisational norms of the context as well as the demands of its member states. This is especially true in the education sector due to the soft power of the EU (Symeonidis et al., 2021).

These elements can be linked and enriched by those of neo-institutionalism. The analytical tools taken from historical neo-institutionalism concern historical precedence and existing institutional structures. In the context of this study, it is helpful to know the historical people, institutional structures and policies that existed before the Covid-19 pandemic. In this way, changes in institutional structures in response to the Covid-19 crisis will be more evident (Schmidt, 2020). These elements will be used as lenses to examine interruptions of path-dependencies or continuities related to sustainable development and its learning.

However, the historical neo-institutional elements alone do not have the tools to explain the complexity of the EU response to a crisis (Schmidt, 2008). Indeed, they tend to be over-determined, and agents have largely been set in terms of preferences or norms. In crisis scenarios, such as that of Covid-19, more flexible elements are needed to better understand the situation. For this reason, it is useful that some elements of discursive neo-institutionalism enrich the theoretical framework, which will frame this study. Indeed, discursive neo-institutionalism offers insights into the interests of actors, the ideas of agents and discursive interactions. Knowing how ideas and discourse are used by policy makers to frame responses in learning for sustainable development and climate change awareness adds depth to the picture. Therefore, to answer the research question of this study on EU responsiveness to the Covid-19 pandemic in the field of education for sustainable development and awareness of climate change, research needs to consider not only organisational conditions, but also the policymakers' subjective interpretation of these conditions through discourse. Discourse, materialised in EU policy documents, published since the outbreak of the Covid-19 pandemic, can make visible the dynamics underlying the construction of political issues of education for sustainable development and awareness of climate change. Furthermore, the contents of discourse are ideas that can change and influence the way political actors perceive their interests and the environment in which they mobilise. Therefore, understanding which ideas have been involved in building policies on education for sustainable development and awareness of climate change in response to the Covid-19 pandemic and which ones have been prioritised can help the purpose of this study. This choice finds support in Symeondis and colleagues (2021), who have studied that the European promotion of narratives, sustained by funds, was central to react to the pandemic. Thus, the awareness of knowing that there will be processes of responsibility and legitimation underlying the policies adopted in education for sustainable development and awareness of climate change can be integrated with ideas and discourse.

Conclusions

From the description of the evolution and characteristics of the organisational theories and neo-institutionalism it is possible to draw the following conclusions. On the one hand, the organisational theories are manifold and have followed an evolution. The most recent contributions underline the active dimension of the response to change and highlight the central role of interorganizational practices or actions oriented not only to the reconfiguration of operational routines, but also to the assumption of responsibility and legitimation (Gärtner et al., 2017) and to the use of strategies (Ortmann, 2010). Through this lens, therefore, the attention in this study will be placed on the EU agency and on its needs to take responsibility and legitimise priorities to respond adequately to the crisis triggered by the Covid-19 pandemic. The analysis will focus not only on contextual rules and regulations, but also on the claims of stakeholders (such as member states, especially considering the "soft" legal competence of the EU in the field of education).

On the other hand, the different frameworks of neo-institutionalism can complement each other's falls. Historical neo-institutionalism limiting staticity can be integrated by discursive neo-institutionalism. This enriches the picture by providing the subjective interpretations of the actors. The contents of the agents' ideas and the interactive processes that serve to generate those narratives and communicate them to the public will give greater depth to the study (Schmidt, 2008). This other lens will therefore look at the subjective interpretations of the actors involved in learning for sustainable development and awareness of climate change.

This theoretical framework will guide the analysis of the EU's responsiveness with respect to education for sustainable development and awareness of climate change both from the point of view of organisational conditions and of the subjective interpretations of the actors (Symeonidis, 2021). Thus, the research and analysis of the collected documents will be framed within a theoretical framework composed of elements of organisational theories and neo-institutionalism.

Now that the theoretical framework has been outlined, it is necessary to define the key concepts of the study and create a conceptual framework. Indeed, in the next chapter the conceptual framework will be outlined through a review of the

literature. International tools will also be provided to have an international framework for learning for sustainable development and awareness of climate change.

Chapter II

Sustainability and education for sustainable development. Literature review, conceptual framework and international instruments

Introduction

This second chapter tries first to create a conceptual framework that explains and connects the concepts of sustainability, sustainable development, education for sustainable development and environmental education. A literature review will be conducted in order to understand where these concepts fit in the academic literature, their definitions and the theories behind them. The direction and nuances of the academic debate on sustainable development, education for sustainable development and awareness of climate change will thus be outlined. The conceptual framework outlined will provide the lens through which the data collected from the documents will be analysed and presented in the last chapter. Indeed, the precise definitions of the concepts will be useful for the correct study of the phenomena.

Furthermore, the chapter intends to describe the global political phases of greatest importance for the emergence and evolution of sustainable development, education for sustainable development and environmental education as ideals and as concrete results of international political activity. The main sustainability objectives and targets supported by these policy initiatives will be identified. The focus will be placed on international politics and policy for sustainable development to clarify the regulatory framework of soft and hard law and the international instruments governing the concepts described above. A timeline will be followed from the first declarations, conferences and conventions that sought to protect biodiversity to those that had sustainable development as their title. The milestones identified in academic literature at the 1992 Rio Conference and its follow-up: the 2002 Johannesburg Conference will be illustrated. The fundamental role of UNESCO in carrying out initiatives to promote education for sustainable development - particularly during the United Nations Decade for Education for Sustainable Development and the Global Action Program - will be clarified. Finally, the 2030

Agenda with the United Nations Sustainable Development Goals (SDGs) will be introduced as one of the latest and most important advances in the focus area. The 2030 Agenda will be analysed both generally and in detail as regards education for sustainable development.

2.1. Sustainability and sustainable development.

"Sustainability" is one of the most used keywords of the last two decades. It has come a long way, as it is a term that connects disparate academic and political groups based on a broad common agenda. Indeed, it has managed to be a meeting point for politicians and scientists. This has created synergies that have led to sustainability taking on an important political role and becoming a concern around the world. Over the past two decades, networks have been formed and alliances between different stakeholders and shareholders have been built, projects have been formulated and money - in ever larger quantities - has been spent in the name of sustainability. The constellation of actors found themselves often not in agreement on the meaning of the term. Some accused it of being ambiguous, others found it contradictory. Academics continue their effort to refine its meaning, placing it in ever more precise terms within disciplinary debates. However, according to Stones (2007), it is thanks to the vague vision and broad regulatory commitment that the term emanates that it is so politically powerful. The fact is that the definition remains ambiguous, vague, contested and full of different nuances and theories (see below) (Portney, 2015).

The term first appeared among environmentalists, eager to show how environmental issues could be linked to development questions. Over time, it has acquired more conceptual depth and nuances, exploring more and more links with other human fields of knowledge (cf. Folke et al. 2002; Clark and Dickson 2003). For instance, in the 1980s there was a global explosion of academic debate and political debate on sustainability, particularly ahead of the United Nations Conference on Environment and Development (UNCED), held in Rio in 1992 (see below). In the 1990s, therefore, multiple versions of sustainability with different technical meanings, priorities and visions had arisen, creating a lively, albeit

confused, debate (Stoones, 2007; Portney, 2015). Thus, the term does not have a single and agreed meaning. It has taken on different meanings based on political ideology, knowledge and values across disciplines in academic debates (Sterling & Huckle, 2014). There are those who emphasise the ecological system when describing sustainability. According to these scholars, ecosystems have a finite capacity to sustain life, the so-called "ecological carrying capacity" (Kidd, 1992). Human beings would then have to find the optimal stage not to exceed the maximum limit of the earth's ability to support human life and well-being. Studies on ecology have been conducted on how ecosystems respond to shock and stress and how they can be resilient (cf. Holling, 1973). In this perspective, markets often undermine the carrying capacity of the Earth by depleting its resources. Some authors find part of the solution to ecosystem survival, endangered by the economic system, in the potential of technology to continuously expand the earth's carrying capacity[8] (Portney, 2015).

Another current of thought emphasises more the ethical and socio-political components of sustainability. Robinson et al. (1996) affirm that sustainability concerns the durability for an indefinite future of certain characteristics - deemed desirable - of socio-political systems. The perception of what conditions are believed to be preserved changes with the authors. In this vision of a sustainable society, the natural environment is still present, but the focus is more on maintaining socio-political-economic conditions. Equity and justice occupy an important place in this picture. A central theme is the widening gap between haves and have-not and its consequences on the environment (Portney, 2015).

The third line of thinking is characterised by a focus on the economic dimension. Here are the neoclassical economists who, based on the theories of substitutable capital, define the so-called "weak sustainability" (cf. Solow, 1991). Pearce (2007), for example, argues that weak sustainability implies the possibility of substitutions between different types of capital in the production process and that the total capital stock increases over time. In particular, "natural capital" (a natural resource) can be

[8] To know more about the role of technology in sustainability and its critiques read Portney, K. E. (2015). *Sustainability*. MIT Press from page 12 to 18.

substituted by “human capital” (a worker’s skills). This view is opposed by economists who instead believe that a stronger definition of sustainability is more adequate. They claim that “critical natural capital” cannot be replaced (cf. Pearce & Atkinson, 1993, Goodland, 1995). The irreplaceable critical capital is believed to be natural and environmental capital (as land, water, air, biodiversity), which must be protected in order not to allow its decline. The theory can go even further and state that the economy is only a subset of society, and society depends on the environment. The interactions between society, economy and the environment create an interconnected and nested system (Hattingh, 2002). This view is often presented in three circles, where the economy is embraced by society and society is constrained by environmental boundaries (see below). Some authors claim that to have a strong sustainability there should be limits to growth or a de-growth (Glavič, 2020).

Finally, ecological economics emphasise more the link between ecological systems and economics, generating fields such as life cycle analysis (cf. Common & Stagl, 2005). The business community has gathered some elements from these theories, elaborating concepts such as the “triple bottom line”, social responsibility and the stakeholder theory. The stakeholder theory states that the organisation that integrates business with social issues creates more value for its critical stakeholders, leading to better operational, economic and financial results (Freeman, 1999). Fonseca and Lima (2015) highlighted how research supports this case as there appears to be a positive correlation between social sustainability, innovation and competitiveness. Sustainability has begun to be seen as one of the necessary elements within the objectives of a company and of the business in general (Elkington, 1997; Clarke and Clegg, 2000).

The definition of strong sustainability has been increasingly shared among scholars. According to Huckle and Sterling (1996) and Fonseca et al. (2018), the concept of sustainability refers to a system’s ability to function indefinitely, balancing the ecological, economic and social spheres of society. More than a description of a real condition, it is thought of as a concept / paradigm to imagine a future in which the pursuit of development and improvement of the quality of life is obtained from the balance of environmental, social and economic objectives. In this way, goods

and services are available in society while preserving natural resources and ensuring social justice. Therefore, it has a look to the future but at the same time to the past and the present for the need to maintain / renew / restore something specific (Sutton, 1999). This idea rejects the thesis that casualties in the environment and in social reality are inevitable consequences of economic development (McKeown et al., 2002). It embraces the ethical dimension of a fair compromise between current economic pressures and the future needs of the environment (Wilkinson & Gollan, 2001). Some authors have added that ecologically, economically and socially sustainable society should also be culturally and personally sustainable. In this way cultural diversity is preserved and the healthy life of every citizen becomes a goal. Furthermore, Portney (2015) states that sustainability is different from environmental protection such as conservation and conservation of natural resources in that it is much more proactive and holistic, focusing on long-term dynamic processes. It certainly focuses on the condition of the Earth but on its biophysical environment; on the search for a steady state capable of supporting the human population and economic growth without definitively exploiting the health of humans, animals and plants.

A society that is trying to achieve sustainability is going through sustainable development (SD). Starting with political sciences such as Andrew Dobson (1999), who outlined political theories incorporating a 'green' political perspective and coming to theorising a "science of sustainability" (Kates et al. 2001), the concept of sustainable development has made its way in the political debate from the definition of the Brundtland Commission onwards (see below) (Little & Green, 2009). In recent years, this idea has gone a step further in suggesting that pursuing sustainability in cities and other smaller geographic areas could represent a new path towards greater global growth and better liveability (Portney, 2013).

Sustainable development was conceived as a possible response - some would say utopia - to the perceived conflicting objectives / trade-offs between environmental protection and economic growth or between economic growth and equity (Quental et al., 2011). Going against the cornerstones of the neo-classical theories of economic growth, the solution was found in the idea that the biophysical environment represents an irreplaceable factor of economic production to the point

of undermining economic growth (Portney, 2015). The scenario of theories is as rich as that of the more general concept of sustainability. Some economists, such as Pearce (2007), believe that the concept of sustainable development has to do with per capita well-being, ensuring its increase over time. Well-being is generally perceived as consisting of substitutable capitals: man-made capital, human capital, environmental capital and social capital[9]. However, not all forms of capital can be replaced: the disappearance of all the world's forests would be catastrophic. The most cited and accepted definition of sustainable development in the literature can be found in the Brundtland Commission report "Our Common Future"[10] (cf. Wilkinson & Hill, 2001; McKeown, 2002; Venkataraman, 2010; Glavič, 2020). According to Portney (2015) the definition represents a convenient starting point to better understand the concept. It reads as follows: "Sustainable development is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs'" (WECD, 1987 page 8). Therefore, sustainable development is, first and foremost, a development activity characterised by intergenerational concerns with associated rights, duties and responsibilities (Jelin, 2010). Sustainable society can consist of the goods and services it needs, while conserving natural resources and offering social justice. In this way, the needs of the present are met without compromising those of future generations. It aims to meet the long-term needs of humanity while at the same time supporting the ability of natural systems to provide natural resources to support the economy and society of the present (Glavič, 2020). In a sustainable society it becomes logical to speak of "sustainable citizenship" which refers to a strong and resilient civil society that calls for institutional changes that ultimately create a sustainable state. Citizenship would be actively practised through moral duties (to know more see Vihersalo, 2016).

However, being a rather vague definition, some authors have elaborated it with various concepts, drawing on the literature on sustainability. Fonseca et al. (2018)

[9] Note that this theory mirrors that of "weak sustainability" described above.

[10] The Brundtland Commission's (the World Commission on Environment and Development) report "Our Common Future" was a document published in 1987, which defined the concept of "sustainable development". To find out more: https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf.

add that sustainable development requires simultaneously profitable economic development, social progress based on equity and respect for the environment. Therefore, the goal is to integrate the perspectives of people, planet and profits in a complicated mix that requires the participation of all and a multidisciplinary and systemic approach. This will create value for shareholders, customers, employees and society. According to Pearce (2007) the above definition has two implicit concepts. The first is that the word "needs" refers to the needs of the world's poor, which should be given political attention and priority. Situations of marginalisation and inequality are contrary to the idea of sustainable development. The second, would refer to the idea that there are limits - given the stage of technology and social organisation - to the earth's ability to meet present and future needs without constraints, *rebus sic stantibus*. Brown et al. (2014) claim that the concept incorporates also notions of eco-development, in the sense of prescribing a greater attention by business and industry to the most efficient use of natural resources.

Although the authors have highlighted one aspect rather than another, the current and most consensual approach to sustainable development reflects the idea that environment, economy and equity are the three co-equal and intertwined spheres that make up the concept of sustainable development (Martins & Mata, 2006). As can be seen in figure 2.1 (see below), sustainable development lies in the intersection of the three spheres: that of the environment (including water and waste), that of society (including employment, human rights, gender equity, peace and security) and that of the economy (including poverty reduction, corporate responsibility and responsibility).

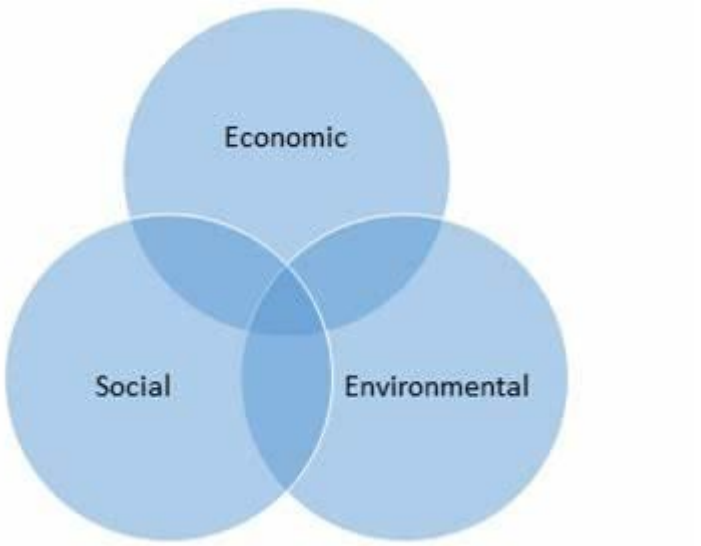

Figure 2.1 Sustainable development is represented as the common intersection of the three spheres: environmental, economic and social. Source: Rosen (2017)

Only by promoting the simultaneous achievement of environmental protection, the maintenance of economic growth and the promotion of equity can sustainable development be achieved. No pillar must be sacrificed to the greater achievement of another (McKeown, 2002). As with the more general concept of sustainability, that of sustainable development has been criticised, judging it to be incorrect, too narrow, selective and controversial. Jelin (2010) states that it is unclear whether future generations should be saved at the expense of present ones. Furthermore, the methods and mechanisms of its implementation have been judged to be inefficient in solving global problems (cf. Glavič, 2020). Pearce (2007) then pointed out that what he defined as "social capital" would need more prominence in discussions on sustainable development. In fact, if progress has been made both in terms of human capital and the environment, the situation of wars and social discord would require a greater commitment in the social sphere. For his part, Portney (2015) pointed out that, when it comes to sustainability and sustainable development, one should not focus only on reducing carbon emissions and reliance on fossil fuels - as the recent attention on climate change seems to support - but it is necessary that the vision be holistic, also including other resources, such as water.

Interesting ideas that enrich the discourse on sustainable development come from the concept of human development. At a very fundamental level, human development has at its core the same ambition as sustainable development. The universalism that inspires the concept of giving future generations the same attention as the current one is also at the centre of human development (Sen, 2000). Indeed, human development is about enabling people to lead healthy and fulfilling lives (being capable to do what they desire) while making sure, in a sustainable sense, that future generations can do the same (Sen, 1999). Therefore, development (human and sustainable) is ultimately about empowering people. However, Neumayer (2012) argues that human development literature tends to place more emphasis than sustainability on the multiple dimensions of development: health, education, autonomy and freedom rather than simply increasing per capita income. These dimensions are considered valuable in themselves and not as instrumentally productive. In the same direction, the multidimensional understanding of poverty reveals the many aspects under which people can be deprived. Therefore, the concept of human development can enrich that of sustainability by placing the emphasis not only on how to achieve a sustainable society but also on what to take care of.

Closely related to what has just been elucidated is the rights-based approach to development. The approach places the achievement of human rights as an end, means and framework for development. Therefore, human rights are perceived as an outcome and a constitutive part of the development process. In addition, the international human rights accountability apparatus is brought in to support development action (Boele et al., 2001). Finally, consistent with Sen (1999), the secure enjoyment of rights is also a precondition for sustainable development, including an agency aspect.

2.2. Education for sustainable development and environmental education.

Education has always played a vital role in society. In developing countries, it has supported economic growth, enabling technology transfer, promoting productivity

and progressively improving the skills base. Policies that invest in education, reducing environmental damage and encouraging responsible consumption have become increasingly important (Little and Green, 2009).

Education is also perceived as an essential and critical tool for achieving sustainability and sustainable development. Interest in education on sustainable development (ESD) and climate change has increased in recent years, partly attributable to the expansion of funding for educational programs addressing these issues (Wals, 2009; Anderson 2012). This is visible in national policy documents around the world, concerning the expansion of ESD participation and the reorientation of curricula especially in primary and secondary education. In some cases, both SD and ESD are part of a country's environmental strategy. On the other hand, Wals and Kieft (2010) concluded that most countries do not have a specific national ESD policy or strategy. Furthermore, the social, economic and cultural dimensions are often neglected in some countries, preferring to focus on the environmental one.

Once again, the lack of agreement on the definition in a landscape marked by contested meanings, different approaches, issues, methodologies and implications have hampered efforts to promote education for sustainable development. This situation has also created regional teaching courses focused more on one dimension (for example on the social dimension) and others more focused on the environmental or economic one (Fonseca et al., 2018). However, there appear to be firm points in the literature, such as the distinction between education about sustainable development and education for sustainable development. The first concerns raising awareness or theoretical discussion of the concepts underlying sustainability. The second concerns the use of education as a tool to achieve sustainability, where "for" indicates a purpose. This is the meaning consistent with United Nations documents dealing with ESD (see below) (Leich, 2018). In this sense, education for sustainable development is an approach to teaching and learning that aims to equip people with knowledge and skills for lifelong learning, which can help individuals to find new solutions to environmental, economic and social problems (McKeown, 2002; UNESCO, 2009). Indeed, as also emphasised by Huckle (2014), a fundamental function of education for sustainability is to help

people reflect and act on the meanings they have learned. This will then help them to envision and shape future societies in more informed and democratic ways.

Furthermore, UNESCO (2007) and other authors (see Little & Green, 2009) believe that education for sustainable development is a call for change the way education is structured. Change is part of a new vision of education, the direction of which is to ensure a sustainable future. To do this, one should start from the ground up and holistically change/reorient the way children, teens and adults learn to think, evaluate and act (Tilbury, 2004). Gadotti (2008) reflected on the need to change by adding depth to the concept. The author sees current education and educational institutions as barriers to sustainable development as they reinforce the values underlying the free-market economy and unsustainable lifestyles. Without a radical change of the current economic model to embrace one that relies on sustainability, education for sustainable development and life (Wals & Kieft, 2010) will not achieve its goals. The need for change inherent in ESD (in education content and delivery, etc.) shares similarities with previous and parallel movements such as environmental education (see below), peace education, human rights education and development education (for an overview see Stables & Scott, 2002 and Jenkins & Jenkins, 2005). On other aspects they differ; from the target to the content and design (Little & Green, 2009). However, the boundaries are not so clear as the contents of the ESD are multi- and trans-disciplinary. In fact, the skills and knowledge to reconcile human and economic well-being and respect for the earth's natural resources but also for cultural traditions are part of the package. The three pillars of sustainable development - discussed above - are part of ESD, to which the cultural dimension is added (Čiegis & Gineitienė, 2006).

The socio-cultural dimension (which refers to issues related to human rights, peace and human security and gender equality), the environmental dimension (which refers to issues related to natural resources, climate change and rural development), and the economic dimension (which refers to issues related to poverty reduction, corporate responsibility and responsibility) are all included in education for sustainable development (UNESCO, 2009). By merging all these elements in a holistic and integrated manner, ESD aims at enabling individuals to develop the knowledges, skills and values to take active part in the improvement of life not only

globally but also locally (Venkataraman, 2010). In addition to this, Warburton (2003) noted the need for innovative educational approaches that facilitate a real interdisciplinarity to effectively address the issue of sustainability with the acquisition of relevant skills and competences. The cultural dimension is added because the contents of ESD are intended to be locally relevant and appropriate by grounding them in traditional cultures and religions. Indeed, different cultures conceptualise and see the relationship between humans, other living creatures and nature in different ways (Jelin, 2010). However, this should not go against the promotion of a global education for sustainability for all (McKenzie, 2008). Little and Green (2009) also suggest that ESD should focus more on studying and promoting equality and peace[11], while also gathering more evidence on its impact. Partnership is also a recent aspect added (UNESCO, 2016). These themes are intersected and are included in future education, citizenship education, gender equality and respect for human rights and education for sustainable consumption. UNESCO (2007) states that ESD helps citizens build the capacity to make community-based decisions and promotes social tolerance using a variety of pedagogical techniques, preferring those that promote participation skills.

The focus on content has shifted over time from training and education on sustainable development to one more focused on learning processes. It is no longer considered sufficient to explain to people how to live with sustainable lifestyles and create an environmental conscience or more strictly a common sense (Vihersalo, 2016). Now ESD also aims to enable people to actively contribute to sustainability. The provision of knowledge, information and facts about ever-changing planetary conditions and environmental issues, their risks and causes to influence individual choices and politicise daily life is not over (Vihersalo, 2016), but has been complemented by the need for capacity building and participation for sustainable development, while ensuring respect for cultural diversity (Wals & Kieft, 2010). The shift in focus has started the debate on what are the best skills and qualities to contribute to sustainable development in uncertain and complex times. There seems to be a consensus on the need to develop in individuals the skills that allow them to

[11] This thought is in harmony with that of Pearce (2007) - illustrated above - delineating the need to give more prominence to social capital.

critically evaluate global and intergenerational problems and find solid strategies to solve them (Almlöv & Moberg, 2008). Vare and Scott (2007) then added that ESD as a collaborative and reflective process is not determined in its purpose, its contents and its necessary skills once and for all but is transformed by adapting to changing needs.

Formal, non-formal and informal modes of education at all levels of teaching and learning should be involved in the vision of ESD. All should play a role in the pursuit of shaping attitudes and values to address global challenges. Formal government organisations need to collaborate with NGOs, often working in non-formal and informal settings (Wals & Kieft, 2010). Advocacy for ESD education, awareness raising, and training programs are all considered. Furthermore, since the goal is rather complex and challenging, these methods of education are aimed at the widest possible target, from young people to adults.

In the academic literature, reference is often made to the difference between education for sustainable development and environmental education. The concepts are different, even if in some respects they overlap. The lack of clarity in the distinctions between the two terms has sometimes led to inefficiencies (Pavlova, 2011). The concepts are also mentioned in almost all regional reports for the review of the Decade of Education for Sustainable Development (see below) (Wals for UNESCO, 2009).

According to those who support a narrow definition, both terms are legitimate and necessary. Environmental education (EE) is defined as a discipline based on the idea that man is part of nature. At the centre is the relationship of man with the natural environment and the methods of conservation, preservation and management of the latter's resources. Therefore, environmental concerns gave birth to the concept. On the other hand, education for sustainable development is more based on the human sphere, which includes and historically derives from environmental education, but involves socio-cultural, socio-political and economic factors that are part of a wider context. Some authors believe it is important to include ESD in addition to EE in educational systems since the former adds new

dimensions that the latter does not address or only lightly addresses. Due to the wider focus, some countries have felt the need to replace EE with ESD, embracing all aspects of sustainability (McKeown & Hopkins, 2007).

In addition to this narrow idea, there are different and broader thoughts on how to perceive the two concepts. Some authors, referring to the Tbilisi Declaration[12], affirm that environmental education also includes political issues such as poverty, inequity, values and ethics. Indeed, by considering the environment, social aspects enter the picture, recognizing the close links between economy, environment, development and sustainability in general. Education on how to use resources wisely and raise awareness of climate change is complemented by concerns of equity and durability. To these they add that EE also adopts both local and global perspectives and promotes international solidarity (Sauvé, 1999). Therefore, the Tbilisi Declaration went against the idea that EE strictly focuses on the protection of natural environments by emphasising only ecological principles and without considering the needs of human populations, understood as an integral part of the ecosystem. Economic realities need a broader definition that includes planetary solidarity.

Wals and Kieft (2010) expressed similar thinking in some respects but different in others. They argued that the two terms become almost synonymous when interpreted broadly to include the political, social, cultural and economic spheres. If interpreted narrowly, to focus only on the environment and ecological aspects, they also become almost synonymous[13]. The authors go on to say that EE is usually interpreted broadly in line with the spirit of the Tbilisi Declaration[14] as in the case

[12] The Tbilisi Declaration was the first intergovernmental conference on environmental education, organised by UNESCO and convened in 1977 in Tbilisi, Georgia.

[13] The theories of a narrow definition of ESD refer to those on sustainability that highlight the ecological aspect, as described above.

[14] Environmental education has been defined as: "environmental education is to succeed in making individuals and communities understand the complex nature of the natural and the built environments resulting from the interaction of their biological, physical, social, economic, and cultural aspects, and acquire the ~knowledge, values, attitudes, and practical skills to participate in a responsible and effective way in anticipating and solving environmental problems, and in the management of the quality of the environment." (UNESCO, 1977, page 25).

of the ESD by UNESCO (2016). In this scenario it is possible to create synergies between the two. Following this line of thinking, Gadotti (2008) states that it is important that education for sustainable development continues to work as an ally of environmental education because the latter has shed light on human relationships with the environment. The environment was no longer seen as an object, but as a living creature that shares the same destiny with the human being.

Finally, from 2005 the international community has shifted the emphasis on the term education for sustainability to better serve the purpose of sustainable development and not having to deal with the ambiguity of environmental education (McKeown & Hopkins, 2007; Hume & Barry, 2015).

The recent rise of Climate Change Education is seen by some authors as the evolution of ESD. They claim that it addresses sustainability in an integrative way by incorporating multiple perspectives and disciplines (cf. Kagawa & Selby, 2010). However, others, particularly within UNESCO's DESD (see below), argue that Climate Change Education is part of ESD as an important priority (UNESCO, 2006).

Furthermore, recently there have been calls to provide young citizens with Environmental Citizenship Education (see Hadjichambis & Reis, 2020). It will help ESD with the transformation of the values, beliefs, attitudes and behaviours of individuals to act and participate in society as agents of change through an interdisciplinary, collaborative and systemic approach (Barry 2006). Environmental Citizenship Education would be a useful addition as it focuses on collective action that allows citizens to exercise their environmental rights and duties with active involvement and civic participation.

2.3. Sustainability and education for sustainable development in international instruments.

The global political activity on sustainable development has had a history marked by different steps and actors.

Conferences, Declarations and Conventions (UN)

Global political activity on sustainable development has been marked by periods of significant achievement and others that have been less successful. The start-up period focused on biodiversity that goes from the 1950s up to 1979 and the one from 1987 to 1995 are generally considered to be marked by achievements. On the other hand, periods of stagnation and decline in the 1980s and from 1995 onwards are considered less successful. Since 2000, there has been a significant political commitment that will lead first to the approval of the Millennium Development Goals and then to the 2030 Agenda (see below). The Earth Summits every ten years (the first in 1992 with Agenda 21 and second in 2002 in Johannesburg) (see below) have acted as catalysts for ever deeper social and political action around sustainability and sustainable development. The concerns and objectives of this political activity have also varied: from an emphasis on pollution control and availability of natural resources to a position that has put human and social development at the centre (Quental et al., 2011). The introduction of the human dimension brought human rights to the stage. If the environment is damaged, basic rights are at stake (Jelin, 2010). Furthermore, the focus in international treaties has shifted from single issues (such as the conservation of some species) to more complex and integrated ones (such as the conservation of entire ecosystems) (D'Amato, 1997). Finally, since the 1990s and especially since the 2000s, governance issues have entered the international agenda.

The story really begins in the 1970s with the first steps in the direction of environmental protection. In 1972 there was the Stockholm conference, recognized as a milestone because it led to the creation of the United Nations Environmental Program[15]. In 1987, the concept of sustainable development, coined by the Brundtland Commission, appeared for the first time on the international stage. Until 1986 there was not much progress. In fact, in those years, economic growth was considered the solution to development problems. Subsequently, there were great

[15] The UN Environment Programme sets the environment agenda at the international level, promotes its coherent implementation and advocates for the global environment (UN Environment Programme, retrieved from: https://www.unep.org/about-un-environment).

efforts by the international community exemplified by the United Nations World Commission on Environment and Development (WCED) report "Our Common Future" (see below). Finally, sustainable development entered the scene and received general support (Glavič, 2020). Since 1996, the fear of terrorism and the globalization of the economy have marked a decline in the global policy of sustainable development. This stalemate was broken in the 2000s.

The conferences, declarations and programs that have marked the history of political action and institutionalisation for the affirmation, recognition and promotion of sustainability, sustainable development and its teaching are described in detail below.

First declarations and the 1992 Rio Conference

The process of emergence of environmental values as a political issue is very new and still ongoing (Jelin, 2010). Environmental discourse began to appear in the 1950s, motivated by concerns about growing poverty and social inequalities [16]. A key catalyst for international awareness of the Earth's environment was the United Nations Conference on the Human Environment (UNCHE) held in Stockholm in June 1972 (Quental et al., 2011). Three agreements were reached: the Stockholm Declaration, which formed the first soft law body in international environmental affairs; an action plan of 109 recommendations and five issue-specific resolutions.

After that, important results were achieved thanks to the World Commission for Environment and Development (WCED). The commission, established by the General Assembly of the United Nations in 1982, was conceived as an independent group of high-level experts and government officials who were to study and develop strategies to promote the sustainable development of societies. The "Our Common Future" report, published in 1987, is recognized as one of the most important publications as it contains a definition of sustainable development, explanations of the factors underlying the equity gap and guidelines for implementation. Borowy (2013) states that the publication of that report fostered

[16] In those years there has been the creation of the current International Union for the Conservation of Nature (IUCN) in 1948, the United Nations Scientific Conference on the Conservation and Use of Resources in 1949, the World Population Conferences in 1954 and 1964 and the Biosphere Conference in 1968 (to know more cf. Quental et al., 2011).

international awareness of sustainability issues, which ultimately contributed to the positive context and success of the United Nations Conference on Environment and Development (UNCED) in 1992. At the conference, held in Rio de Janeiro, the expectation of reaching agreement on a global sustainability agenda was high (Conca, 2015). Indeed, most of the world's heads of state, more than 1000 non-governmental organisations, UN agencies, journalists, corporate players, community groups and people attended. According to some authors, the conference was a success in focusing not only on theory but also on implementation and in producing three international agreements: the United Nations Framework Convention on Climate Change (UNFCCC), the Convention on Biological Diversity (CBD) and, in 1994, the United Nations Convention to combat desertification (UNCCD).

Additionally, participants agreed on a more local, community-driven process leading to a 40-chapter sustainable development project called Agenda 21 (cf. Keong, 2020). It envisioned sustainability being built from the bottom up through local initiatives by local governments, community groups and citizens. Despite the conceptual ambiguity about the terminology adopted, the agenda focuses, *inter alia*, on education for sustainable development (Pearce, 2007). Indeed, chapter 36 was specifically devoted to the reorientation of education towards sustainable development. Four main actions are identified to initiate the work of education for sustainable development: improve basic education, refocus existing education to address SD, develop understanding, public awareness and training (Glavič, 2020).

The divergences and struggles between North and South were visible at the conference, leading to a greener agenda than the one proposed by the WCED. Furthermore, not everyone agreed on the agenda (the United States in particular). Criticisms were also issued for the lack of a real commitment over time. However, there has been significant political demand for a global partnership in SD, targeting particularly rich countries to reduce their consumption levels (Little & Green, 2009). The creation of alliances and an entire network around SD and ESD had begun.

After the Rio Conference

After the Rio Conference, the debate on climate change began to be taken seriously. Although the Kyoto Protocol, adopted in 1997, almost collapsed (Victor, 2011), after 2000 climate change began to be perceived as a real political and economic problem, to which people and governments had to pay attention. In September 2000, the world's heads of state gathered at the United Nations to host the Millennium Summit. The result of the meeting was the adoption of the Millennium Declaration, which covered both development and environmental concerns. For the first time, global goals for sustainable development have been set. The Millennium Development Goals included, among others, halving poverty, halving the number of people without access to clean water, halting the spread of AIDS and ensuring universal primary education for all by 2015 (Quental et al., 2011).

The 2002 Johannesburg Conference

The World Summit on Sustainable Development (WSSD) took place in Johannesburg in 2002. It was the follow-up to the Rio Summit. The conference was attended by over 100 heads of state and nearly 25,000 different organisations, making it one of the largest events organised by the United Nations (Wapner, 2003). Civil society has been involved in the preparation of numerous parallel events. The summit resulted in a declaration and a more detailed implementation plan for the decisions taken ten years earlier in Rio. Quental and others (2011) argue that the conference is considered a flop as it limited itself to recalling the goals already established during the Millennium Summit, without pursuing more stringent commitments. On the other hand, Haas (2016) concluded that, despite the weak results of the WSSD, civil society has increased its responsibility and its role as a key player in sustainable development and environmental rights. A decentralised international governance system consisting of multiple actors was emerging in global environmental policy. Global and local environmental movements are distinctive in that they transcend social positions, carrying a universalistic set of values and interests that potentially incorporate all of humanity (Jelin, 2010). Besides, education has again been recognized as having a key role in achieving

sustainability made up of economic well-being, respect for the Earth's resources and cultural diversity (UNESCO, 2007).

2.4. The UN Decade of Education for Sustainable Development: the role of UNESCO.

UNESCO's involvement in environmental awareness and education dates to the Organisation's early days. Not only it was committed in the creation of the first major NGO mandated to help preserve the natural environment[17], but also it was involved in convening the UN Conference in Stockholm - mentioned before – which led to the setting up of the United Nations Environment Programme[18]. It was also involved as a key factor in the first world conference in 1977 in Tbilisi on environmental education (Leicht et al., 2018). Currently one of UNESCO's goals is to improve access to quality education for sustainable development at all levels and in all social contexts, by reorganising education and helping people to develop knowledge, skills, values and behaviours for sustainable development. For instance, in several countries, UNESCO Chair programs have been established, focusing on specific issues related to sustainable development and education for sustainable development (UNESCO website). UNESCO is also responsible for measuring the indicators that contribute to SDG4 (see below).

After the global commitment to Millennium Development Goals (MDGs) - related to ESD - significant recognition of the importance of education for sustainable development has occurred during the Decade of Education for Sustainable Development (Wals & Kief, 2010; Shulla et al., 2020). The General Assembly of the United Nations, in its 57th session in 2002 (Johannesburg Declaration), decided, with resolution 57/254, to start the 2005-2014 Decade for ESD, designating UNESCO as the lead agency. The goal was to strengthen the role of education for

[17] In 1948 UNESCO was involved in the creation of the IUCN (International Union for the Conservation of Nature, now World Conservation Union).

[18] The United Nations Environment Program (UNEP) sets the environmental agenda at the international level, promotes the implementation of the environmental dimension of sustainable development within the United Nations system and acts as an advocate of environmental globalisation (https://www.unep.org/about-un-environment).

sustainable development, focusing on four areas: education as an implementation tool for SD, reorient education systems to meet the commitments of the Millennium Development Goals and Education for All (see below), facilitate and encourage networking between ESD stakeholders and the development of approaches for assessing progress in ESD. This effort was aimed at helping to implement Agenda 21, striving to integrate SD principles in national education systems around the world through the creation of a global movement to reorient education (Wals & Kieft, 2010). In part this goal was achieved thanks to the fact that major players in the education sector were persuaded to take ESD into account and to renew their educational programs (Glavič, 2020).

In 2009, UNESCO Member States pledged, at the UNESCO World Conference on Education for Sustainable Development and in the final declaration[19], to implement a Global Action Programme (see below) to continue working to shape and disseminate education for sustainable development, recognizing, *inter alia*, the pivotal role of youth, traditional and indigenous knowledge and promotion of gender equality. Since the Decade of ESD, it has been clear internationally that it was no longer possible to conceive of education as a simple adaptation or change of behaviour, but as a process that would lead individuals to develop knowledge to take personal responsibility for society's development. Therefore, ESD had to be seen as an innovative concept that can give a new face to teaching and learning (Michelsen & Wells, 2017). The commitment was reiterated and gained further strength when member states pledged to promote education for sustainable development beyond the end of the decade at the 2012 United Nations Conference on Sustainable Development in Rio de Janeiro (Rio+20). In the Declaration "The Future We Want" the commitments and objectives of promoting education for sustainable development for the green economy, for work and social protection and in general for sustainability beyond the Decade of Education for Sustainable Development are spelled out.

[19] The Bonn Declaration is accessible at: https://www.desd.in/ESD2009_BonnDeclaration080409.pdf.

From the Decade of ESD to the Global Action Programme

UNESCO has developed, at the 37th session in 2013, a Global Action Programme (GAP) on education for sustainable development for the years 2015-2019. The Programme, as a follow-up, was a tangible contribution based on the lessons learned from the Decade and it created a new impetus for ESD as a key enabler for sustainable development. The GAP aimed to enhance implementations and best practices, focusing on generating and increasing action on the ground through knowledge, skills and values as well as awareness to drive sustainable change. It was based on five priority areas: advancing policy, transforming learning and training environments, capacity building of educators and trainers, mobilising young people and accelerating sustainable solutions at the local level, as well as aiming to accelerate progress towards the SDGs (see below) (UNESCO 2016). To do this, a two-pronged approach was adopted: integrating sustainable development into education through international and national policies and *vice versa*. There were two objectives: to reorient education towards empowerment, contributing to a sustainable future and to strengthen education and learning in all activities that promote sustainable development (Fischer et al., 2015). The inclusion of ESD in the proposed goals for the post-2015 agenda was also reaffirmed in the Muscat agreement[20] adopted at the 2014 Global Education for All Meeting (GEM).

2.5. The 2030 Agenda: The United Nations Sustainable Development Goals (SDGs).

From the 21st century there was a feeling that the traditional approach to development was no longer adequate to the new geopolitical and economic framework (Boto-Álvarez & García-Fernández, 2020). The need to "leave no one behind" within the framework of the dimensions of sustainable development (social development, economic growth, environmental protection and peace and partnership) has stimulated a new impetus for global political activity on sustainable development (Duran y Lalaguna & Dorodnykh, 2018). This happened in September

[20] The Muscat Agreement is available at: https://it.scribd.com/document/237852869/7-Muscat-Agreement.

2015 at the 70th United Nations General Assembly, where heads of state and government from 193 countries agreed on a 2030 Agenda for Sustainable Development.

The 2030 Agenda is first and foremost an action plan for people, the planet and prosperity. To do this, it seeks to eradicate poverty in all its forms and hunger around the world and to fight inequalities within and between countries and cities in which to live a healthy life. Providing decent work for all is necessary in this regard. It also seeks to build peaceful, just, inclusive and innovative societies that promote human rights, gender equality and the empowerment of women and girls. As for the environment, it aims to guarantee the protection of the planet with its natural resources (United Nations, 2015). Such collective action requires public-private partnerships and a multilevel approach (Horan, 2019). The United Nations claim that the project was born from the awareness of the irregular successes and failures of the Millennium Development Goals. Experiences and lessons learned have informed an Agenda that wants to be more engaging and successful (UNDG, 2014). In the document there are included a Declaration and 17 Sustainable Development Goals (SDGs) and 169 targets, covering all dimensions of sustainable development. Goals are meant to be action-oriented, global and universally applicable (Osborn et al., 2015). Implementation challenges and a framework for follow-up and review add to the content. As better explained below, the 2030 Agenda is conceived as integrated and indivisible, in the sense that it must be implemented in its entirety. Indeed, the different objectives and targets are intertwined (European Commission, 2016). There are causal relationships between the SDGs as studied by Dörgo and others (2018).

The 2030 Agenda has as its important theme the assurance of quality, inclusive and equitable education for all. Education is seen as a powerful driver of transformative change in people's values and behaviours, necessary for sustainable development. In fact, Goal 4 focuses on "achieving inclusive and equitable quality education and promoting lifelong learning opportunities for all" (United Nations 2015, page 14). Education ranges from early childhood development to secondary education, involving technical, vocational and tertiary skills and entrepreneurship.

While the document does not refer to environmental education, there is a specific target (Target 4.7) that has to do with education for sustainable development. ESD is recognized as having a key role in promoting sustainable development as an integral element of quality education. Indeed, thanks to education for sustainable development, combined with other disciplines and strategies, citizens of the world can acquire the knowledge necessary to understand and promote sustainable development and, ultimately, become active agents of change. People need to learn about sustainable lifestyles, human rights, gender equality, peace and nonviolence, global citizenship, cultural contribution and diversity by 2030. Eventually, the change will come from people with the political will and values to do so. Despite the importance attributed to ESD, Agbedahin (2019) states that education for sustainable development is a good way to achieve SD but remains open to other possibilities and approaches, if efficient and culturally appropriate. In the Agenda it is mentioned that partnership and informal learning are the preferred modalities.

The author has studied the possible links between the various targets concerning education and awareness of sustainable development issues. For example, Target 12.8 aims to ensure that people are equipped with information and awareness for sustainable development and lifestyles. The connection with ESD is evident as this has as its primary objective to provide knowledge and information on SD. Links were also found with Goal 13 aimed at taking initiatives to combat climate change and its impacts. In fact, Target 13.3 deals with the importance of ESD in learning and raising awareness on mitigation and adaptation to climate change (United Nations, 2015). Not only are there almost direct connections but the entire set of SDGs is linked by the *fil rouge* of education in general and education for sustainable development (Agbedahin, 2019). Indeed, ESD is, by definition, transversal, multidisciplinary and interdisciplinary. Therefore, it is interconnected with all the goals. A successful implementation of Goal 4 can have positive effects on all other SDGs. Education is relevant to climate, energy, sustainable cities, natural habitat, consumption and production. Leicht et al. (2018) add that education is also essential for lifting people out of poverty, for learning about more sustainable farming and nutrition methods, gender equality, for health issues and for achieving basic

literacy. Mainstreaming ESD into the 2030 Agenda can help build networks between different partners.

The 2030 Agenda sought to look beyond theory to relevant practice and problem solving, however tensions and contradictions were noted at the 2018 Seedbeds for Transformation Conference in South Africa. According to Agbedahin (2018), to see progress on the SDGs, educators should be involved in building the political discourse on ESD. Their understanding of sustainability concepts will ultimately shape the outcomes of education for sustainable development.

An essential part of the 2030 Agenda is the Incheon Education 2030 Declaration, adopted in 2015 by the World Education Forum. Quality education is emphasised as a public good and as quintessential for achieving all the SDGs (Mundial & UNICEF, 2016). The Education 2030 vision also fully supports the implementation of the GAP on ESD (described above). A new global framework on ESD (ESD for 2030) for the period 2020-2030 adopted by UNESCO followed in November 2019. Its focus is on integrating ESD and the 17 SDGs into policies and learning environments.

Conclusions

The review of the academic debate on the concepts of sustainability, sustainable development, education for sustainable development and environmental education highlighted the following patterns. The concept of sustainability is characterised by a marked discord between the authors of its definition and on which constituent elements to pay more attention. A synthesis of the different academic works leads to finding the founding elements of sustainability in the function of a system that works indefinitely by balancing the environmental, economic, social and cultural and personal sphere of society. Intergenerational concerns then enrich the picture in debates on sustainable development. Meeting the needs of present and future generations is part of the common vision of many authors. The importance given to capabilities and human flourishing in the concept of human development and the

perception of human rights as means and ends of development in the human rights-based approach to development add depth to the sustainable development concept.

Confusion also reigns in defining education for sustainable development. However, some common features can be found in the belief that ESD is an essential tool for sustainable development. Indeed, not only does this educational approach aim to provide people with knowledge and skills about sustainability, but it also aims to enable active contribution. Cultural sensitivity is added as an essential element respecting universalistic values. At the heart of the debate is ESD's call to change the education system and beyond. Furthermore, its multidisciplinary and transdisciplinary nature makes it suitable for creating synergies with other disciplines such as Environmental Education, Climate Change Education and Environmental Citizenship Education. The latter has the characteristic of being able to support collective action and encourage civic participation. From the review of the global political activity focused on the promotion of ESD, the criticality of this educational approach as a tool that will make sustainable development possible is highlighted since Agenda 21 up to Agenda 2030. ESD is in fact perceived as the enabler of all aspects of sustainable development.

It now remains to discover how these concepts were concretely part of the political activity of the European Union, particularly in the context of the political response to the crisis triggered by the Covid-19 pandemic. The next chapter will therefore focus on the analysis of which investment policies and strategies have been adopted and which elements have received the most attention within the concepts of sustainability, sustainable development and above all education for sustainable development and awareness of climate change.

Chapter III

Sustainable development and sustainability in education in the European Union in response to the Covid-19 pandemic

Introduction

The third chapter focuses on sustainable development and sustainability in education in the European Union in response to the Covid-19 pandemic. First, to explore the general theme, the role and responsibility of the European Union in education will first be addressed and clarified. The type of power of the EU in this field and its changing character will be analysed following the historical evolution through the major treaties. An analytical description of sustainable development and sustainability in education in European Union policies will follow. First, the meaning that the European Union attributes to the concept of sustainable development will be critically clarified, highlighting its specificity, evolution and position within European policies and strategies.

Secondly, within the European model of education policy, the useful role played by education on the issues of sustainability and environmental education will be clarified. The various aspects of European policies that have to do with education for sustainability and environmental protection at different levels of education will also be described.

Lastly, the European Union's policy responses to the Covid-19 pandemic will be presented, highlighting instruments and priorities. First, the scenario marked by the crisis triggered by Covid-19 will open this part. Successively, the European Union's response policies concerning sustainable development and education on sustainability issues will be analysed along the lines of adaptability, recovery, and resilience. A historical excursus will follow, starting from the first measures of policies and instruments up to those that have received the most attention. A particular focus will be on the political dynamics involved in choosing priorities and in EU policy selection strategies.

This chapter will help provide a detailed framework of policies in which to insert the empirical data that will be analysed. In particular, the patterns that will be highlighted will be useful in giving direction to the empirical research of data on the EU response to the crisis in the field of education for sustainable development and awareness of climate change. In fact, the knowledge of the evolution of the concepts of sustainable development and education for sustainable development and, finally, of the European policies for their implementation, helps to position the response to Covid-19 in a defined historical and institutional context. Furthermore, this chapter will help in the search for relevant actors, their role and power. Therefore, the empirical analysis that will follow can be based on historical reference points, relevant actors, and significant policies.

3.1. The role and responsibility of the European Union in education.

The power of the European Union in the field of education is often referred to as soft power, considering the "soft" legal competence[21] of the EU in this field. Indeed, the reasons for the limited power partly stem from the fact that education has historically been closely linked to nation and state building and has therefore been perceived as an area of national competence and legitimate diversity (Gornitzka, 2006, Alexiadou, 2007).

Education remained a matter of strict national competence until at least twenty years after the signing of the Treaty of Rome in 1957. Then, in 1976 a resolution of the European Council introduced for the first time the voluntary participation of ministers of education in the procedures of the European Community (Pépin, 2007). In these early periods, responsibility at European level was mainly focused on mobility and exchange, reinforced with the establishment of the Erasmus program in 1987 and the Socrates program in 1995 (Gornitzka, 2006). These programs, notably Erasmus, have significantly intensified the EU's involvement in European higher education, particularly in the areas of credit transfer and university

[21] The EU can propose measures to Member States that are not driven by compliance in the form of directives, regulations, and decisions (Gänzle, 2008).

networking and cooperation (Keeling, 2006). Finally, with the signing of the Maastricht Treaty in 1992[22], school education was included in the Community action programme through a single education policy framework (Corbett 2005). However, any harmonization was left off the agenda and Member States remained solely responsible for their education systems. The Union has therefore established among its objectives that of contributing to the development of quality education through policies that encourage and support cooperation between states. According to the principle of subsidiarity, the EU can support and integrate the national actions of the Member States, not entering the didactic content and organization of education systems, characterized by linguistic and cultural diversity (Treaty on European Union, 1992, Article 126). In addition, the European Union can play a role in monitoring actual outputs. On the other hand, when it comes to vocational education and training (VET) and the recognition of professional qualifications, the power of the EU has always been greater. Indeed, these sectors were considered essential to guarantee the free movement of workers and thus the proper functioning of the internal market. Vocational training was then expanded by the Court of Justice in 1985[23] to include some university degrees and levels of study.

Since the arduous efforts to create a 'social Europe' have begun, the European Union's influence in the educational field has been growing. Since 1995, efforts have been pushed in the direction of harmonization and integration of the educational systems of the Member States. This endeavour saw the Bologna Process[24] in 1999 as an important result which led to the standardization of part of the tertiary education sector. Despite this, higher education is still clearly not an EU competence but remains reserved for EU Member States. Indeed, the European Commission's Directorate-General for Education and Culture has limited resources to complement higher education activities (Keeling, 2006). Furthermore, schools, vocational training, and older age learning remain heterogeneous (Tuschling &

[22] The Treaty on European Union, also known as the Maastricht Treaty, was signed in Maastricht on 7 February 1992 and entered into force on 1 November 1993.
[23] The European Court of Justice decision, *Gravier* (ECJ, 1985).
[24] The Bologna Process was a series of meetings and agreements between the European Member States. The purpose of these was to ensure the comparability of standards and quality of higher education qualifications (Università di Bologna, https://www.unibo.it/en/international/agreements-and-networks/bologna-process).

Engemann, 2006). That said, the European Commission has steadily increased its involvement in higher education issues over the past fifty years. The change in EU education policy has also come about thanks to the Lisbon Strategy, a ten-year development plan set out by the Lisbon European Council of 23-24 March 2000. It aimed at economic, social, and environmental renewal in the EU[25]. Walkenhors (2008) argues that economization and functionalization have entered the domain of education ever since. Indeed, education was launched in the European Union as a useful tool for promoting EU employment and competitiveness in the global economy. Furthermore, since the adoption of the Lisbon Strategy, EU cooperation in education and training has intensified under the concept of lifelong learning[26] (see below).

Finally, as part of the Lisbon Strategy, a new governance soft law regulatory tool has been devised: the Open Method of Coordination (OMC). It was launched by the European Council to act as a multilateral surveillance tool. The tool is meant to be applied to policy areas where Member States have full control, but where they also want to coordinate their policies on a particular topic. Indeed, one of its objectives is to disseminate best practices in education across Europe and lead to convergence towards EU priorities. Policy exchange and learning, with the inclusion of benchmarks and indicators, are at its core (Alexiadou, 2007). Furthermore, the OMC has allowed for a certain degree of EU intervention in national education (Hingel, 2001).

3.2. Sustainable development and sustainability in education in European Union policies.

According to Baker (2007), the European Union has declared itself to be committed to the goal of sustainable development to reconcile its historic commitment to economic development with its new concern to protect the environment. In line with this, the EU has aspired to an international leadership position in the fight

[25] The Lisbon Strategy was approved in Lisbon in 2000. Education and training became part of the social pillar (MacKeogh, 2008).
[26] Lifelong learning is: "the continuous building of skills and knowledge throughout the life of an individual" (Laal & Salamati, 2012, page 399).

against climate change (Vogler & Bretherton, 2006). However, from the doctrine of European law, the term "sustainable development" is believed to be overused and misused. This makes it more of a political concept than a legal one. The European Parliament and the Council of the European Union were aware of this issue and provided their definition of the concept in Regulation 2493/2000/EC[27]. The document states that the development objective must be achieved through a positive economic result, which guarantees the possibility for present and future generations to satisfy their needs. The operational nature of this EU definition is evident in the emphasis placed on sustainable development as a goal to achieve guided by a policy principle: integration policy (Van Hees, 2014). It is also outlined that any important decision taken at EU and Member State level should be subjected to a sustainability impact assessment. Furthermore, it is evident, in the document, a predominance of the environmental sphere.

The sustainable development of Europe and the sustainable development of the Earth have become part of Article 3 (points 3 and 5 respectively) of the Treaty on European Union[28] among many other objectives of an economic and political nature. This coincided with and reflected the work done on sustainable development at the 1992 Rio Summit. The 1997 amendment to the Amsterdam Treaty added the expression "balanced and sustainable development" and underlined the relationship between sustainability and environmental protection (Kiselakova et al., 2020). The

[27] Sustainable development is defined as: "the improvement of the standard of living and welfare of the relevant populations within the limits of the capacity of the ecosystems by maintaining natural assets and their biological diversity for the benefit of present and future generations" (Regulation 2493/2000/EC, Article 2).

[28] Article 3 TEU, 3. affirms: "The Union shall establish an internal market. It shall work for the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment. It shall promote scientific and technological advance". Article 3 TEU, 5. affirms: "In its relations with the wider world, the Union shall uphold and promote its values and interests and contribute to the protection of its citizens. It shall contribute to peace, security, the sustainable development of the Earth, solidarity and mutual respect among peoples, free and fair trade, eradication of poverty and the protection of human rights, in particular the rights of the child, as well as to the strict observance and the development of international law, including respect for the principles of the United Nations Charter" (Consolidated version of the Treaty on European Union - TITLE I: COMMON PROVISIONS - Article 3 (ex-Article 2 TEU), *Official Journal 115 , 09/05/2008 P. 0017 – 0017*,
available at: https://eur-lex.europa.eu/legalcontent/EN/TXT/HTML/?uri=CELEX:12008M003#:~:text=Article%203%20%28ex%20Article%202%20TEU%29%201.%20The,values%20and%20the%20well-being%20of%20its%20peoples.%202.

same provision was repeated in the Treaty of Nice. It was then the Lisbon Treaty that introduced the notion of sustainable development of Europe and sustainable development of the Earth as EU objectives (Kenig-Witkowska, 2017). Also, in the Preamble and in Article 37 of the EU Charter of Fundamental Rights[29] we find a mention of the integration of environmental protection in the policies of the European Union according to the principle of sustainable development.

From all these documents, sustainable development appears to be closely linked to the European vision of balanced economic growth, citizen well-being and environmental protection. However, according to Kenig-Witkowska (2017), this should not be considered an exclusion of the global dimension of sustainable development. Indeed, the mention of the sustainable development of the Earth in Article 3 (5) TEU confirms the EU's commitment to preserve global natural resources and the quality of the environment to ensure sustainable development.

Soon, the statement that sustainable development is an important aspect of Europe's present, and future was also affirmed in program and strategy documents. In fact, the Environmental Action Program implemented in the years 1992-2000 focused on European activities in this area already in its very title. Furthermore, the first EU Sustainable Development Strategy was launched at the Gothenburg Summit in June 2001. The Strategy was addressed to entrepreneurial actors, NGOs, and citizens to encourage them to be more involved in the work for sustainable development. As part of the Strategy, a peer review mechanism has been envisaged to improve the sharing of good practices between the different levels of government (Dalal-Clayton, 2004).

In 2005, the Commission of the European Communities issued a Communication to the Council and the European Parliament containing the draft Declaration on

[29] In the Preamble of the EU Charter of Fundamental Rights it is affirmed: "The Union contributes to the preservation and to the development of these common values while respecting the diversity of the cultures and traditions of the peoples of Europe as well as the national identities of the Member States and the organisation of their public authorities at national, regional and local levels; it seeks to promote balanced and sustainable development and ensures free movement of persons, services, goods and capital, and the freedom of establishment". Article 37 (Environmental protection) of the EU Charter of Fundamental Rights affirms: "A high level of environmental protection and the improvement of the quality of the environment must be integrated into the policies of the Union and ensured in accordance with the principle of sustainable development".

Guiding Principles for Sustainable Development to guide the EU in achieving the sustainable development goal. According to this Declaration, the EU is committed to pursuing the following political principles relevant to sustainable development: promotion and protection of fundamental rights, intra and intergenerational equity, open and democratic society, involvement of citizens, businesses and social partners, policy coherence, governance and integration, use of the best available knowledge, the precautionary principle and, finally, the "polluter pays" principle (Commission of the European Communities, 2005).

The EU updated the Sustainable Development Strategy in 2006. According to what is written in the document, the political objective of the EU countries is to continuously improve the quality of life of citizens by respecting the principle of sustainable development, managing resources effectively and using the economic potential to ensure prosperity and environmental protection. Besides, a description of the potential economic, environmental, and social impacts had to be included in each legislative proposal (Simionescu et al., 2017). In 2010, the EU Sustainable Development Strategy was again revised and adapted to the period 2010-2020. At that moment the priority was to get Europe out of the financial crisis. To this end, the aim of the Strategy was to create the European conditions for a more sustainable future based on sustainable and inclusive growth (Kenig-Witkowska, 2017).

In March 2010, the European Commission launched another strategy: Europe 2020. It was realised as a follow-up to the Lisbon Strategy. Europe 2020 revolves around three priorities of European economic growth to make it smart, sustainable, and inclusive. The strategy promotes a vision of the European economy based on knowledge and innovation, which is at the same time more resource efficient, greener, and more competitive and which also promotes high employment by ensuring social and territorial cohesion (European Commission, 2010). Therefore, as with the Lisbon Strategy, Europe 2020 calls on Member States, on the one hand, to increase competitiveness and, on the other, to work towards sustainable development. In the strategy, education, training, and lifelong learning are mentioned as essential parts of economic growth (see below). More detailed references to European sustainable development are also present in the White

Papers, Green Papers and Communications of the European Commission and Opinions provided by the European Economic and Social Committee (Dobrovic et al., 2018).

Finally, today the European Union says it is committed to the implementation of the 2030 Agenda for sustainable development through its external action tools linked to funding (European Union Newsroom website). Three areas are responsible for implementing and monitoring of the 2030 Agenda: the EU's comprehensive approach, EU development cooperation and EU foreign policy. The first concerns the link between domestic and foreign policy; the second deals with the relaunch of the European Development Consensus framework; the third focuses on the EU's Global Strategy for Foreign and Security Policy.

The European Development Consensus framework, originally adopted in 2005 for development cooperation, has been updated in 2017 to implement the 2030 Agenda under the EU's external assistance program[30]. The primary objective of the framework in favouring the achievement of the cooperation of the Sustainable Development Goals concerns the fight against poverty, its eradication in developing countries and the reduction of inequalities (Goals 1 and 10). This objective is mentioned in the TEU (see Article 21 (d)[31]). To support development, the European Fund for Sustainable Development (EFSD) is established to support investments in Africa and the neighbourhood. Other themes within the Framework are environmental protection and the fight against climate change. These issues should be included in the development strategies of Member States and international partner partners, who should be supported in the preparation and implementation of tailored national strategies. Despite the twenty-seven EU member states being the world's largest donor and the European Development Consensus framework being ambitious, according to the *Deutsche Gesellschaft für Internationale*

[30] The European Development Consensus framework also contributes to the implementation of the Paris Agreement on climate change, adopted on 12 December 2015, and to that of the Addis Ababa Action Agenda, a package of over 100 concrete measures to finance sustainable development.
[31] Article 21 TEU, point 2 (d) affirms that the Union shall: "foster the sustainable economic, social and environmental development of developing countries, with the primary aim of eradicating poverty".

Zusammenarbeit (2019) the Development Consensus remains vague and refers only to various EU funding instruments.

Furthermore, the Cotonou Partnership Agreement, adopted in December 2020, is a treaty between the EU, EU Member States and 78 African, Caribbean and Pacific (ACP) countries. The follow-up agreement, launched in April 2021, aims to complement the implementation of the 2030 Agenda and to adapt to the European Consensus on Development (Hinkle et al., 2006).

According to Baker (2007), the strategy adopted by the European Union to combine economic and environmental objectives is called "ecological modernization". This concept is part of a theory of social change that focuses on how to integrate economic and environmental goals through ecological reforms as a response to the environmental crisis. The author argues that this strategy could be seen as a symbolic output of politics; especially when compared with the definition of sustainable development formulated by the World Commission on Environment and Development. Indeed, ecological modernization is contrary to the strong definition of sustainable development because it cannot have a global mandate and frames nature as a "permanent reserve" of exploitable resources. Therefore, Baker's thesis is that the European Union claims to pursue sustainable development to represent itself in a particular way, building an identity of the EU. In truth, however, the EU is pursuing ecological modernization.

As regards education on sustainability issues, a similar trend to the global one has been followed in the European Union. Indeed, since 1980, most European countries have made basic formulations and started developing concepts of environmental education (Jucker & Mathar, 2014). However, some authors underline some characteristics that make the European model of educational policy peculiar. A common argument is that EU education policies promote neoliberal ideas of "education for the economy". A limited space is therefore left to the European social dimension (Alexiadou et al., 2010). As further elaborated by Olson (2012), European education policy is closely linked to building European citizenship and market competition. Therefore, the role of education is to facilitate individual achievement, mobility, and autonomy to bring more education, knowledge and

employment that correspond to market-oriented competitiveness needs. The European Union is aware that, in a world where other countries compete with cheap labour and / or primary resources, education can ensure economic competitiveness by producing knowledge and create skilled workers. The link with sustainable development lies in the connection between education that promotes growth, development and therefore progress. Furthermore, widespread consent and citizen participation in the economic project would pass through education and public awareness. Therefore, education for sustainable development is also part of a neoliberal policy design (Moutsios, 2010). This argument was confirmed by the European Council (2006, p. 6) in the context of the relaunch of the Lisbon Strategy, which concludes that "education and training are critical factors to develop the EU's long-term potential for competitiveness as well as for social cohesion." It makes no sense for some authors that education is seen as a boon to the current labour market because the latter is a determinant factor in causing social inequality and is based on unsustainable models (see Muñoz, 2015 and Panitsides & Anastasiadou, 2015). Gornitzka (2005) argues that the Lisbon Strategy also recognizes education as part of labour market policy and not as a distinct area. Similarly, Halász (2013) argues that European interest in education stems from the pressures of the employment area.

Within this framework, the European Union has developed policies to promote public education and awareness on sustainable development, the impact of businesses and social partners on the environment and their options for making more sustainable choices. Great attention was paid to higher education and mobility projects (in the Erasmus, Leonardo da Vinci, and Jean Monnet programs). Indeed, the emphasis on sustainability, sustainable development, and protection of the environment for future generations in higher education programs has gained momentum (see for instance Wang et al., 2013 and Scott, 2012). Following the 1999 Bologna Declaration[32] and the establishment in March 2010 of the European Higher Education Area (EHEA), some universities in Europe have started offering

[32] The Bologna Declaration was the result of the Bologna Process which aimed to create a common European educational framework, harmonizing European higher education systems, and creating convergence in terms of academic awards, curriculum structure and skills (Dante et al., 2013).

integrated courses with sustainability themes. The European Higher Education Area aimed to ensure more comparable higher education systems within the European Union. To join it, a country must sign the European Cultural Convention[33]. Part of the EHEA focus on sustainability-based curricula, the way courses and content are delivered. A solid multidisciplinary approach was deemed necessary when it comes to sustainable development (Blackburn, 2016).

As regards the EU's external action on this issue, the TEMPUS (Trans-European Mobility Programme for University Studies) programme was created. This programme was launched by the Council of the European Communities in 1990 with the aim of promoting reforms of higher education systems in partner countries of Central and Eastern Europe. Support was needed to help these countries adapt to the needs of a market economy and to modernize their higher education systems (Kehm et al., 1997). Today the program is open to EU partner countries and neighbouring countries: Eastern Europe, Central Asia, the Western Balkans, and the Mediterranean region. Furthermore, the implementation takes place through university cooperation projects (Tempus website).

A similar program is Erasmus Mundus. This program is in line with the Bologna Declaration and the Lisbon Strategy with a view to global attractiveness of the European higher education system and its adaptation to the needs of the knowledge society. The new edition of the Erasmus Mundus Program (2021-2027) allows non-European institutions to join the applying partnership and has also allocated part of the budget to the financing of scholarships for European students (Borrallo, 2010).

Furthermore, according to Zervakis and Wahlers (2007), the development of the European Qualification Framework constitutes a solid basis for strengthening education for sustainable development within national higher education systems and academic disciplines. Indeed, thanks to this framework, the themes of sustainable development in the ecological, economic, social, and cultural

[33] "The purpose of this Convention is to develop mutual understanding among the peoples of Europe and reciprocal appreciation of their cultural diversity, to safeguard European culture, to promote national contributions to Europe's common cultural heritage respecting the same fundamental values and to encourage in particular the study of the languages, history and civilisation of the Parties to the Convention" (Council of Europe website).

dimensions would play a more salient role in the curricula of the institutions, in the daily operations, in the infrastructures and in the relations with the respective ministries of the educational institutions and / or with research institutes. A window of opportunity for ESD to become embedded in the European higher education system was opened (Segalàs et al., 2009). However, there is still a lack of coordination and cooperation in education and research processes, which hampers sustainability. Zygmunt (2016) calls for the educational institutions to work together, creating international teams of research experts to improve the delivery of education for sustainable development.

Education is also embedded in European policies to train people in green jobs and to create those jobs. Green jobs, as defined by the European Commission (2012, page 4) are: "… covering all jobs that depend on the environment or are created, substituted, or redefined (in terms of skills sets, work methods, profiles greened, etc.) in the transition process towards a greener economy." There is a need to create the right skills to train workers to meet the new needs of the green economy. In this way, education and training can contribute to the development of green jobs, increase labour productivity and, above all, move towards sustainable development. According to Pociovălișteanu and others (2015), a change in the business environment and labour market is needed if the EU is to move towards a greener economy. This is where the importance of the correct skills and ability to adapt to market demands comes into play. In addition, economic actors and the general population should be educated nationally about respecting the environment by providing environmentally friendly education.

Another point of interest in which European policies have focused is lifelong learning. The Lifelong Learning Program, decided by the European Commission in 2006 for the period 2007-2013, for example, has placed education and training throughout the life of citizens by targeting schools, the area of higher education, vocational training, and the adult education sectors. The EU believes that learning and education even outside the classroom at all stages of life are becoming increasingly important. Indeed, the more educated citizens are, the better the EU will be able to cope with the rapidly changing global economy. Also in this case, the choice fell on lifelong learning because it is an area where economic returns and

social outcomes are high (European Council, 2006). Citizens are encouraged to adapt to the demands of the labour market and society by updating knowledge and skills so that everyone, in all age groups, works to increase overall productivity. Finally, by promoting lifelong learning, the EU invites Member States to include other elements beyond traditional skills, such as respect for fundamental rights and values and an understanding of sustainability. In this way the EU is aiming for the inclusion of skills which are not yet part of the traditional education system, but which are now considered essential to promote a greener and more sustainable society.

Freedom to choose which methods to use to develop new skills is left to national preferences, but those that promote digitization are preferred. Indeed, the EU has extensively promoted, through policies and initiatives, the increase of citizens' digital skills to foster, above all, competitiveness but also to avoid social exclusion. The emphasis on the need for digital skills is also linked, in the 2008 Communication "New Skills for New Jobs", to the fact that they are indispensable for the transition to a low-carbon economy (European Commission, 2009). Furthermore, the 2010 Digital Agenda initiative recognized the need to develop indicators to measure the extent of digital competence in the EU and aimed to increase the participation of women in the ICT workforce. Therefore, a Digital Competence Framework ("Dg Comp") was created to help citizens assess their digital skills (European Parliament, 2017).

One policy that brings together all these issues is the previously mentioned Europe 2020 Strategy. Education was chosen as one of the five thematic areas associated with smart growth. Two objectives for education are presented: to lower the school dropout rate below 10% and to achieve that at least 40% of people aged 30-34 have completed higher education (European Commission, 2010). Education is once again seen as an extremely useful tool because better levels of education help employability and progress. The increase in the employment rate would ultimately help reduce poverty. Therefore, the focus is on improving competitiveness and promoting job creation. Education for sustainable development and environmental education are absent in this Strategy; only mention is made of the need to increase

corporate social responsibility within the business community to move towards sustainable growth.

As in the case of sustainable development, even with education the EU presents itself as a very involved actor in the implementation of the 2030 Agenda, in particular of Goal 4. Indeed, education and training are one of the priorities of Cohesion Policy in the period 2021-2027. The European Social Fund and the European Regional Development Fund are responsible, among other things, to support the development of the education sector in relation to SDG 4. The objectives concern the modernization of education and training systems, the reduction of early school leaving, the promotion of better access to quality education and the strengthening of education and vocational training systems at European, national, and regional level (Lambert, 2021).

Furthermore, in general, environmental education has received more attention in the history of European education policy than other types of education, such as ESD. Indeed, the need for coherent environmental education programs across all stages of education systems has been convincingly pushed into the European Union (Brinkman & Scott, 1996).

Finally, in December 2019 the European Green Deal was signed by European leaders. Among other things, it highlights the importance of education in helping the EU to become carbon neutral by 2050 (see below).

3.3. The European Union's policy response to the Covid-19 pandemic: instruments and priorities.

Covid-19 has taken Europe by surprise, like the rest of the world, and has created an unprecedented public order emergency. Consequently, a multidimensional and profound crisis has suddenly hit the medical, social, and economic sectors of society. This has caused psychological consequences, physical shocks to markets, greater systemic vulnerabilities, and socio-economic inequalities with repercussions on education, food, access to health and citizens. Food security in some countries and resilience were at stake. The consequences of the pandemic,

both in terms of threats and opportunities for the pursuit of the Sustainable Development Goals, have been studied by some authors (see Leal Filho et al., 2020 and Van Zanten & Van Tulder, 2020). Unlike previous financial and economic crises, this time almost all areas of public policy were affected. Given the situation, policy makers at national and European level have decided to question the fundamental principles of the functioning of the EU, such as free movement within the Schengen area and solidarity in response to common threats. At least in the first period the strict emergency measures have in fact limited the freedom of people to mobility, work, association, and education. A reformulation of the exercise of economic policy and sustainable development goals was also undertaken (see below) (Vavoura & Vavouras, 2022). Initially, Member States' search for individual ways to tackle COVID-19 sharpened domestic policy discussions. Some authors and experts were concerned and disappointed by the EU's initial inability to quickly adapt to a rapidly changing emergency. Subsequently, the ability of the EU institutions to provide timely assistance or at least coordinate responses from Member States was of paramount importance (Entin & Galushko, 2021).

Van Schaik, Jørgensen and Van de Pas (2020) defined a crisis as a situation that threatens the priority objectives of the decision-making unit (the EU in this case), surprising it by its occurrence and reducing the time available to respond to it. Framing and re-framing of a crisis usually occurs through speeches, events, and policies (Voltolini et al., 2020). The EU response to the crisis triggered by the pandemic is one example.

The response policies of the European Union have been of different types and approaches, changing over time. In the first period, the EU response appeared uncoordinated and marked by a lack of immediate interventions to help Italy in terms of medical equipment, the reintroduction of internal borders and the disorganized adoption of lockdowns (Wolff & Ladi, 2020). Shortly thereafter, despite being caught by surprise and hesitating, EU policymakers opted for the first time to suspend certain legal frameworks, as with the Stability and Growth Pact in March 2020. These measures were then followed by the decision on the long-term EU budget of € 1,800 billion and that on a recovery plan called Next Generation

EU of € 750 billion (see below). According to Grek and Landri (2021), a space for articulated response has finally opened, showing the willingness of EU leaders to protect citizens by suspending the dominant economic regime.

As regards education policy, the European Commission, bound by the new budget and the Next Generation EU plan, has updated its education strategy by deciding to establish the new European Education Area by 2025 (see below) (European Commission, 2020). This initiative was introduced in 2017 by the Juncker Commission and was finally approved during the pandemic. A European Skills Agenda and Action Plan for Digital Education have been added to increase the use of digital technology and learning across Member States. The Directorate General for Education and Culture provided also online materials for learning. The EU's fostering of skills and digital acquisition is nothing new on the educational agenda, as seen above. However, Symeonidis and others (2021) claim that this has increased as a pandemic response strategy.

Questions have been asked in the academic literature about the impact of the Covid-19 pandemic on these EU policies. The authors questioned whether the pandemic represents a critical moment, what lessons should be drawn, which policy areas are changing, and which are not (Wolff & Ladi, 2020). There is agreement that the EU responses to Covid-19 have moved in the direction of adaptability to the crisis, recovery (also mentioned in the title of the Recovery and Resilience Facility) and improving the resilience of various systems such as economic, health and education. Adaptability, as defined by Tommasi, Scartascini and Stein (2014, p. 223), is: "the ability of governments to change policy when such policy change is deemed necessary". Sometimes the policy change can lead to a paradigmatic change, which is a change in the dominant belief system, or simply to a change in discourse. Wolff and Ladi (2020) argued that the EU's adaptability to respond to the crisis caused by Covid-19 has been found to be superior to other crises. According to the authors, the adaptability to a state of prolonged emergency varied by policy area. State aid, economic governance, cybercrime, and climate change are the areas that have been at the centre of adaptability policies and that have seen previous trends accelerate the most. Contingent learning has also occurred, especially on the economic side

with the introduction of the redistributive dimension (see below) (Ladi and Tsarouhas (2020).

Closely related to adaptability is resilience, which can be reflected in adjustments and adaptations that seek to bridge the gap between the current crisis and the needs of society to cope and adapt to adverse events (Entin & Galushko, 2021). The concept is also related to shock recovery through being resilient. A resilient recovery underpins many national and European instruments (such as the Recovery and Resilience Facility) and is also being investigated by the Lancet COVID-19 Commission and the Pan-European Commission for Health and Sustainable Development. Documents produced by these actors show that a resilient recovery is based on a holistic and multi-sectoral approach that not only underlines the importance of strengthening health systems, but also incorporates the social, economic, and green dimensions and other ongoing trends such as digitization (Sagan et al., 2020).

The policy priorities that were agreed during the March 2020 videoconference meetings were identified in public health, travel, research, economics, crisis management, solidarity, and education (Goniewicz et al., 2020). Furthermore, Vavoura and Vavouras (2022) argue that the pandemic highlighted the importance of the social dimension of sustainability consisting of health insurance, access to health care, clean water and sanitation, quality education and gender equality. The authors claim that it has become impossible not to consider these social goals as political priorities.

These chosen priorities are the result of political dynamics. The European Commission has announced the launch of policy responses to the pandemic with great emphasis. In the State of the Union speech in September 2020, the President of the European Commission Ursula von der Leyen (2020[34]) announced that the policies have been adopted "to build the world we want to live in". However, in the first months of the outbreak of the pandemic there was no enthusiasm as there was a strong disagreement among European leaders. The political space was inflamed

[34]A summary of the speech is available at: https://ec.europa.eu/info/strategy/strategic-planning/state-union-addresses/state-union-2020-en.

by politicized debates on the North / South divisions and the polarization between the 'frugal four' led by Dutch Prime Minister Rutte (which included the Netherlands, Austria, Denmark, and Sweden) and the Franco-German position. The first group was very cautious about releasing EU funds without strong conditionality; the latter, on the other hand, was fighting for a European recovery plan based on a mix of direct transfers and loans. Later an agreement was found between European policymakers putting aside the cleavages on the rule of law. They have in fact realized it was convenient to find a compromise and to cooperate between Member States (Ladi & Tsarouhas, 2020).

The found agreement gave birth to the following tools to address the economic and social consequences of the coronavirus pandemic and be resilient. For the first time, the General Escape Clause (GEC) was activated to support national economies that became fragile after months of lockdown. It allows Member States to take fiscal measures by circumventing the Stability and Growth Pact (SGP). In addition, a temporary loan facility was approved to support national short-term employment schemes, called SURE. Regarding the strengthening of health systems, a program for the period 2021-2027 called EU4Health has been activated (Vavoura & Vavouras, 2022).

The policies that have been most emphasized as those that will take the European Union out of the crisis triggered by Covid-19 are the following. The adoption on the 21st of July 2020 of the "Next Generation EU Recovery Plan" (NGEU) with €750 billion by the European Council, as proposed by the European Commission and by several EU Member States (the Franco-German compromise), was enormously celebrated both by the media and by many European and national politicians. The NGEU's goal is to address the damage caused by the coronavirus pandemic and stimulate growth by fostering resilience to shocks and public spending through a structural economic policy response. This recovery plan not only offers a financial rescue plan providing funding for immediate needs, but also wants to promote sustainable development by proposing incentives, regulations, and long-term investments in the green and digital transitions. The result aims for a more sustainable, resilient, greener, more digital, stronger, and fairer Europe for the next generations (Eklund, 2021). This is an innovative type of policy as the

European Commission has been given significant power to borrow money on the financial markets and transfer it to Member States mainly in the form of grants. This feature has led some authors to think that there has been a paradigm shift in the structures of European economic governance towards a structure like that of federal regimes (see for instance Fabbrini, 2022).

There is the Resilience and Recovery Facility (or fund) (RRF) which is the key pillar of the NGEU with a budget of € 560 billion (value dating back to when approved). The Facility was set up to support the countries that suffered the most from the crisis by providing loans and grants for the first years of the recovery. Funds are distributed to Member States conditional on the implementation of national recovery and resilience plans. National plans must include coherent reform packages to be implemented by 2026 and investment priorities in line with those set in the 2021 Annual Sustainable Growth Strategy (European Commission, 2020c). Each plan will be evaluated by the European Commission based on various criteria that have to do with digitized and green economic growth, job creation and social resilience (De la Porte & Jensen, 2021). This mechanism was introduced at the insistence of the so-called four frugal countries - mentioned above - whose economies have all been relatively less negatively affected by the COVID-19 crisis. According to Vavoura and Vavouras (2022), the effectiveness of RRF will play a decisive role in minimizing the long-term negative effects of the coronavirus pandemic.

Additional funding was also provided for the Just Transition Fund (€ 30 billion) to help with the "green transition" and to the European Agricultural Fund for Rural Development (€ 15 billion) to implement structural changes related to the European Green Deal (see below) (Tesche, 2022). Climate action will not only be part of this Fund, but the European Commission would like it to be integrated into all EU programs funded under the Multiannual Financial Framework (MFF, see below) and Next Generation EU programs for approximately € 550 billion (at 2018 prices, corresponding to 30% of the total MFF and NGEU resources). Climate mainstreaming across all relevant EU funding instruments will be done mostly through the European Green Deal strategy (see below). Given the importance

attributed to climate policy, Dupont et al. (2020) pointed out that there may be a critical juncture of EU climate policy. Indeed, reforms and investments primarily in clean technologies and renewables sectors to foster the green transition are expected to increase as the later, with the digital transition, must be a central focus in national recovery and resilience.

The NGEU policy must be read in line with the renewed EU budget. In particular, the Commission has proposed a major increase in EU resources, renewing the size of the next Multiannual Financial Framework (MFF) 2021-2027 to respond to Covid-19. The negotiations took more than two and a half years to decide which policy areas to strengthen with financial allocations. On 11 September 2020, the Council revised the EU budget for 2020 with an additional € 6.2 billion to enable the European Commission to address the impact of the pandemic. It includes the new structure of the EU budget, funding programs, allocations by Member State and data on expenditure and revenue. Among other things, it was decided that the share of the MFF to be allocated to climate-relevant activities would increase from 20% to 25% (D'Alfonso, 2021).

Debates on what was needed more for post-pandemic recovery have animated both European and national politics and academic debates (see for instance Monti et al., 2021). The priority areas that ultimately received the largest spending increases relate to innovation, digitization and climate action, initiatives targeting young people, mostly funded through the Erasmus + program updated with the Programme Guide 2022[35], social inclusion and migration and border management.

At the top of the EU's political agenda, together and combined with the green transition, which was already an EU priority but has seen a strengthening after the pandemic, is the digital transition. A "Digital Decade" was launched by the European Commission setting digital goals to be achieved by 2030. The relevance is once again placed on the economic benefit of investing in this policy area. Digital

[35] The Erasmus + Programme Guide (European Commission, 2022) published on 24/11/2021 and amended on 29/12/2021, provides information on the program priorities (which are in line with those of Next Generation EU), the actions supported, the funding available and how to participate. The document is available at: https://erasmus-plus.ec.europa.eu/sites/default/files/2022-01/2022-erasmusplus-programme-guide-v2_en_0.pdf.

technology is considered necessary to facilitate learning opportunities especially but not only to help retraining or improving the skills of workers. Accordingly, a Digital Education Action Plan for the period from 2021 to 2027 has been envisaged in order to support the adaptation of education and training systems in Member Countries to digital age in an effective and sustainable way (Symeonidis et al., 2021).

As regards education, the Erasmus Plus program has seen its budget increase to € 26.2 billion to address the challenges posed by the pandemic and make the EU more resilient (Bisciari et al., 2021). As reported in the "2022 annual work programme - Erasmus +" of the European Commission (2021), on the one hand there is the continuation of opportunities for study exchange periods and cross-border cooperation projects in various fields of education and training, youth, and sport. On the other hand, new large-scale projects will be funded, supporting inclusive and high-quality digital education and training and the adaptation to the green transition. European projects funded under Erasmus Plus are called to focus on developing skills in various green sectors through innovative learning methods to teach sustainability and climate change (European Commission, 2022).

The European Green Deal and its investment plan, published by the European Commission in December 2019, is another framework for policy initiatives that is part of the growth strategy envisaged by the EU for the new decade and which has been strengthened by placing it at the centre of the European response to the Covid-19 pandemic. One third of the € 1.8 trillion investment in the Next Generation EU Recovery Plan and the EU's seven-year budget will fund the European Green Deal. It includes the EU's first Climate Law, the main objective of which is to achieve zero net greenhouse gas emissions by 2050 in the European Union, making it climate neutral. European policy makers wanted, on the one hand, to further align EU climate policy with the Paris Agreement and the 2030 Agenda and, on the other hand, to achieve a resource-efficient and competitive economy. To achieve this goal, major investments in green technologies and innovation are made available and a new EU Adaptation Strategy has been adopted. Other objectives are to update existing climate laws, revive the circular economy, protect biodiversity, and

encourage sustainable urbanization. In addition, the European Green Deal includes a set of goals, objectives and intentions for sustainable corporate governance initiatives, mandatory compliance with the principles of sustainability, sustainable finance, and investment strategies (Eklund, 2021).

According to Eckert and Kovalevska (2021) this policy is the result of over four decades of European environmental battles and represents an opportunity to prioritize the issue of environmental protection and sustainability in general. Vavoura and Vavouras (2022) added that the study of the key areas that make up the Green Deal shows that the focus is gradually shifting in EU policies from sustainable development to green growth. The latter is based on the strategic selection of an economic growth model that also takes environmental issues into account. It is a concept invented to overcome the trade-offs between economic growth and environmental conservation. Thus, the European Union would not primarily pursue sustainable development but rather focus on a green growth (as outlined in the document Europe 2020 and in the EU-roadmap 2050) as a strategy to be more competitive[36].

The European Green Deal also addresses the crucial role of education and training for the green transition (Symeonidis, 2021). The document presents a small paragraph entitled "Activating education and training" where it stresses the need to develop a: "European competence framework to help develop and assess knowledge, skills and attitudes on climate change and sustainable development" (European Commission, 2019, page 19). In addition, schools, training institutes and universities are all called upon to engage with pupils, parents and the wider community on the changes needed for a successful green transition. The desire to create a European competence framework on climate change and sustainable development was reaffirmed in the Commission's 2020 communication on achieving the European Education Area. The Commission Communication on a European Skills Agenda for Sustainable Competitiveness, Social Equity and Resilience, published in July 2020 at the height of the Covid-19 pandemic, also

[36] This analysis is like the one proposed by Baker (2007) on ecological modernization, presented earlier.

called for a European skills framework focused on education on climate change, environmental issues, and sustainable development (Bianchi, 2020). Finally, attention is also paid to active public participation and the commitment of citizens to have the policies of the Green Deal accepted (Hadjichambis & Reis, 2020).

One last significant policy that has to do with sustainable development in the European Union's response to Covid-19 is the Horizon Europe Framework Program. Its budget has been strengthened and updated to 95.5 billion euros for the period 2021-2027 (Andreucci & Marvuglia, 2021). It is an EU program in the field of research and innovation, based on the previous Horizon 2020. It aims to create greater impact through research and innovation missions (R&I) and simplify partnership opportunities. Its areas of interest are, inter alia, health, culture, climate, emergency and mobility, food, bioeconomy, natural resources, agriculture, and the environment (European Commission website).

Conclusions

The review of the academic literature and the founding treaties of the European Union highlighted its role and responsibility in education. The EU exercises soft power in the field of education policies. Indeed, it can encourage and support cooperation between Member States in quality education initiatives without the power to directly regulate the teaching content and organizations of the education systems. The European Union's influence in the educational field has intensified since its foundation until today especially in the area of higher education. One result is the standardization of tertiary education thanks to the Bologna Process. It has focused mainly on mobility and exchange programs and on vocational education and training.

Furthermore, the critical review of European policies on sustainable development and sustainability in education revealed the following aspects. The European Union has declared in various treaties and strategies that it is committed to pursuing the goal of sustainable development in Europe and in the world through its external actions, aspiring to be an international leader in the fight against climate change. In

the academic literature it has been highlighted how the concept of sustainable development is part of the political vision of the European Union. The EU has given its own operational definition of the concept in which the environmental sphere is predominant. European sustainable development is closely linked to the EU's vision of balanced economic growth and the well-being of citizens, coupled with the growing interest in protecting the environment. This vision is based on a strategy that sees a Europe of the future based on knowledge, innovation and more competitive within the world market. Even if the European Union claims to pursue sustainable development, this would only be a means to better achieve these results and to represent the Union on the world stage in a certain way.

Concerning education policy, similar conclusions can be drawn. The characteristics of the way in which it was conceived have led some authors to speak of an education for the economy, which is closely connected and which favours market competition. Education for sustainable development is part of this framework as an enabler of a development that leads to greater economic growth. Sustainability has entered above all in higher education curricula thanks to the harmonization process. Other salient issues related to education on sustainability issues have to do with green skills and jobs, lifelong learning, digitization, and internationalization. In these areas, sustainability education is once again seen as a useful tool for increasing competitiveness and overall productivity.

Finally, the analysis of the European Union's political response to the Covid-19 pandemic through the instruments adopted and the selected priorities, highlighted the following patterns. The crisis caused by Covid-19 has affected all areas of EU public policies. As a result, the European Union responded with measures that were initially uncoordinated, but which resulted in unprecedented policies. These policies have moved along the concepts of adaptability, recovery and better resilience of systems that are crucial for society. EU politics has played a crucial role in determining the structure of political instruments and priorities. Indeed, from a condition of disagreement on the parameter of conditionality, an agreement was found on the prioritization of economic governance measures, the fight against climate change and education. Sustainable development has also been included in the political response strategy to the crisis. Indeed, Next Generation EU and other

related tools are based on the concept that a resilient Europe must aim for sustainable development, in which green and digital transitions play a crucial role. In this context, the European Green Deal is an example of how the EU wanted to give more emphasis to issues which, although already present in policies, have become more important. Furthermore, the educational strategy has been updated, increasing the budget for the Erasmus + Programme. Greater importance has been attributed to the acquisition of green and digital skills. In fact, these have been considered important by the European policymakers within the crisis response strategy. Indeed, climate change awareness and sustainable development skills and attitudes are part of the EU's green growth strategy to be more competitive.

It is still unclear how the EU's policy response to the pandemic effectively invests in long-term education for sustainable development and awareness of climate change. It remains to be discovered how the European policymakers have expressed their willingness to invest in education for sustainable development and awareness of climate change, which aspects they wanted to focus on and how education will practically take place. To investigate these concepts, the results of the analysis of the data collected through the documents that have to do with the EU education for sustainable development and awareness of climate change will be presented in the next chapter.

Chapter IV

Empirical analysis

Introduction

This chapter will illustrate the results of the qualitative analysis conducted to answer the question *how the EU policy response to the pandemic invests in education for sustainable development and awareness of climate change?* First, the characteristics of each selected document will be presented. A brief description of the documents' sample, representativeness and external validity will then follow. After the introduction describing the context in which the research was conducted, the results of this study will be presented. The results will be reported thematically, and the interconnections will be highlighted.

The results' part will open with a description of the different types of education in the field of sustainable development and awareness of climate change and their complementarity. Particular attention will be given to learning for environmental sustainability as it is one of the forms of education most cited by European institutions. Peace education and Global Citizenship Education are also described as they are two other important types of sustainable development education. One of the central themes of the analysed documents will then be discussed: systemic change in education. The key role of universities will then be presented as one of the main actors responsible for promoting systemic change. Subsequently, the knowledge and skills necessary for education for sustainable development and awareness of climate change, according to the European institutions will be illustrated. Finally, the presentation of the results will end with the explanation of the fundamental role that non-formal and informal education, complementing formal education, plays in education for sustainable development.

At the end of the chapter, the conclusions will summarise the results highlighting the most relevant discoveries made through the analysis of the selected documents.

4.1. Selected documents.

The material to answer the research question on how the EU's policy response to the pandemic effectively invests in education for sustainable development and climate change awareness is composed of European public documents published by the European Parliament, the European Commission, the Council of the European Union with the representatives of the governments of the Member States and the European Economic and Social Committee. In this study, the policy documents, described below, were selected by searching for the following words, in the title and in the text: "education for sustainable development", "education for environmental sustainability" and "education for sustainability". By applying these filters, the database provided ten documents. They were selected, downloaded from the EUR-Lex official documents database website (see table 2 in Appendix[37]) and finally analysed. They cover the legislature from 2020 to 2022.

The first document is Regulation (EU) 2021/947 of the European Parliament and of the Council, of 9 June 2021, establishing the Neighbourhood, Development and International Cooperation Instrument – Global Europe, amending and repealing Decision No 466/2014/EU and repealing Regulation (EU) 2017/1601 and Council Regulation (EC, Euratom) No 480/2009. It is a text with EEA relevance. It establishes the Neighbourhood, Development and International Cooperation Instrument – Global Europe and contains the main guidelines on its functioning. The European Union aims, through this instrument, to uphold and promote its fundamental values and interests worldwide in order to pursue the objectives and principles of the Union's external action, as enshrined in Article 3 (5) and articles 8 and 21 of the Treaty on European Union (TEU). The document, with the SDGs at its core, promotes action to mainstream climate action in the Union policies and education for sustainable development.

The second document selected is the Council Recommendation of 16 June 2022 on learning for the green transition and sustainable development (2022/C 243/01). It is a text with EEA relevance. The Council of the European Union recommends, with

[37] Table 1 in the Appendix 2 lists all the titles and other useful information of the ten documents with also their abbreviated title, used in the description of the results.

this document, Member States to step up and strengthen their efforts to support national education and training by adopting actions on learning for the green transition and sustainable development after Covid-19. The document shows the promotion of the environmental sphere over everything else, accompanied by themes such as lifelong learning, digital skills for the labour market and the issue of the inclusion of minorities.

The third document selected is the Proposal for a Council Recommendation on learning for environmental sustainability (SWD(2022) 3 final). It is also a text with EEA relevance. This document is the proposal of the European Commission's Directorate-General for Education, Youth, Sport and Culture for the Council Recommendation on learning for environmental sustainability, presented as the second document selected for this study. Therefore, its contents are very similar to those of the Council Recommendation.

The fourth document is constituted by the Conclusions of the Council and the representatives of the governments of the Member States, meeting within the Council – Fostering engagement among young people as actors of change in order to protect the environment (2022/C 159/07). This document presents what has been concluded on the engagement of young people in the meetings between the Council and the representatives of the governments of the Member States. It recommends that Member States support young people (work and organisations) to promote their greater involvement as active actors capable of promoting change to better protect the environment.

The fifth document is the Council Resolution on a strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030) (2021/C 66/01). This document highlights the path towards the creation of the European Education Area and beyond, as a political response to Covid-19. EU policy cooperation on education and training is identified to enable and support the green and digital transitions. New skills and competences for the green economy, accompanied by sustainability education, within the framework of lifelong learning policies, are considered a priority for emerging from

the Covid-19 crisis. For this reason, the Council of the European Union deems it necessary to reorient the national education and training systems.

The sixth document consists of the Council conclusions on the European Universities initiative - Bridging higher education, research, innovation and society: Paving the way for a new dimension in European higher education (2021/C 221/03). The Council of the European Union, in this document, makes recommendations to Member States as part of the European Universities initiative, which aims to contribute to a greener and more digital Europe through better and more collaborative European higher education institutions.

The seventh document is the Commission Staff Working Document accompanying the document Proposal for a Council Recommendation on learning for environmental sustainability. This document presents studies and recommendations provided by the European Commission accompanying the Proposal for a Council Recommendation on learning for environmental sustainability, presented as the third document selected for this study. The topics dealt with correspond to those present in the Proposal on learning for environmental sustainability. This document adds the importance attributed to early childhood education and care to achieve effective education for sustainable development.

The eighth document consists of the Opinion of the European Economic and Social Committee on 'How to promote, based on education and training, from a lifelong learning perspective, the skills needed for Europe to establish a more just, more cohesive, more sustainable, more digital and more resilient society' (2021/C 286/06). This document is an exploratory opinion, expressed by the European Economic and Social Committee at the request of the Portuguese presidency. The rapporteur is the member of the European Economic and Social Committee Tatjana Babrauskienė. Several recommendations are provided to support economic growth and a resilient society within the digital and green transitions. It is strongly suggested to improve the quality and inclusiveness of education and training, including education for sustainable development.

The ninth document is the Commission Staff Working Document called 2022 Country Report – Spain, which accompanies the document Recommendation for a

Council Recommendation on the 2022 National Reform Programme of Spain and delivering a Council opinion on the 2022 Stability Programme of Spain. This document presents quantitative data and progress indicators on the socio-political situation in Spain. The main challenges for the Spanish education and training system are also identified. The promotion of education for sustainable development and citizenship education is one of them.

The last document selected for this study is the Commission Staff Working Document accompanying the Proposal for a Council Recommendation on ensuring a fair transition towards climate neutrality. This working document, published by the European Commission, presents the analytical evidence available to support the recommended policy intervention. In the document, education for sustainability is seen as an enabler of the green transition. However, it is not perceived as a valuable investment in and of itself. In fact, only one mention is made of education for sustainability. For the rest, the need for green skills and awareness raising and sustainable consumption is mentioned. In addition, great emphasis is placed on people who may be suffering from the green transition.

The documents' sample, representativeness and external validity

The reasons for the selection of the ten documents are related to the fact that this dataset can provide a first overview of the European Union's policy response to Covid-19 in terms of education for sustainable development and awareness of climate change. Nevertheless, the documents' sample is relatively small; thus, representativeness of the European policy response to Covid-19 concerning education for sustainable development and awareness of climate change might be affected. However, including documents from different actors can increase external validity in three ways. The sample includes documents published by the European Commission, the European Economic and Social Committee, the Council of the European Union with the representatives of the governments of the Member States and the European Parliament. This implies the reporting of opinions from different sources and greater representativeness of the European institutions.

However, it should be noted that the documents of these institutions have a different weight in shaping the EU response to education for sustainable development and awareness of climate change. Different sources imply different weights. The institutions taken into consideration, in fact, have different powers. The European Parliament, the Council of the European Union and the European Commission are decision-making institutions. The first one takes decisions on European laws jointly with the Council of the European Union. It also approves the EU budget. The Council of the EU is the place where national ministers from each government meet to make laws and coordinate policies; while the European Commission uses its right of initiative to present proposals for new laws, which are examined and adopted by the European Parliament and the Council of the European Union. On the other hand, the European Economic and Social Committee represents a variety of civil society stakeholders from across Europe, including employers, workers and representatives of other social, occupational, economic and cultural organisations. The European Parliament, the Council of the European Union and the European Commission consult the EESC when making decisions on political issues. The documents that are promulgated by these institutions are also different. For example, staff working documents, published by the European Commission, support policy making and implementation. They are not meant to establish new legislation. Regulations, on the other hand, are binding legislative acts. They must be applied in its entirety across the EU. Therefore, it is useful to keep in mind that the European institutions and the documents analysed in this research have a different impact in the EU response to Covid-19 concerning investments in education for sustainable development and awareness of climate change.

Furthermore, not only the internal policy response of the European Union to Covid-19 is reported in terms of education for sustainable development but also its external action. In fact, the inclusion of the Regulation 2021/947 of the European Parliament and of the Council of 9 June 2021 establishing the Neighbourhood, Development and International Cooperation Instrument - Global Europe sheds light on European investments in education for sustainable development and awareness of climate change outside the European Union. Third, these policy documents have different target groups. They range from young people to universities to businesses for the

transition to climate neutrality. Therefore, different subjects are investigated, and a greater variety of topics is brought to the analysis. Finally, the sample includes both more political documents such as those of the European Commission and the Council of the European Union, and more technical ones such as those from the European Economic and Social Committee. This aspect could bring more variety to the study sample.

4.2. Results.

The results of the qualitative analysis can be grouped into the thematic areas described in the following pages. The issues that emerged from the analysis of the data are interconnected as they are influenced by similar variables.

Different educations and their complementarity

European documents focus on different strands and movements in education and training. They support issues arising from environmental protection to active citizenship, sustainability and global change. References can be found in environmental education, sustainability education, climate change education, peace education, global citizenship education and education for sustainable development. Science and science education are also mentioned as they have traditionally played an important role in promoting environmental education and learning for sustainability. Despite this variety, according to the European Commission (2022*a*), all these movements and concepts share: *"A vision of education and learning which is transformative, embraces change and promotes sustainability"* (page 6). Furthermore, all recognize the interconnected nature of environmental, social and economic issues and the enormous potential and opportunity that education on and for these issues brings to resilience and to personal and social development. In addition, the approaches recommended in the documents are similar for all types of education. Mostly practical, engaging and action-based learning methods are suggested.

Young people are the main social group to which these sustainability educations are addressed. The Council of the European Union (2022*b*) states that: *"Understand the challenges of sustainable development and are aware of the implications of decisions, actions and lifestyle choices on the environment, the biodiversity and the climate"* (page 10). Youth organisations, in collaboration with local authorities, are encouraged to work jointly to give young people the opportunity to learn more about the environment and to find solutions.

Having said that, it is noted that the European Commission is more inclined to talk about learning for environmental sustainability than other types of education. In fact, as a response to the crisis triggered by Covid-19, the European Commission has placed renewed attention on environmental issues in support of the objectives and ambitions of the European Green Deal.

Learning for environmental sustainability

Learning for environmental sustainability is understood by the European Commission (2022*a*) as a broad concept, to which all the subjects and disciplines mentioned above have a contribution to make. It is about: *"The learning and teaching we need for personal, societal and environmental well-being now and in the future"* (page 6). Education must epitomise awareness of sustainability issues with individual and collective action and empowerment. To this end, it should, on the one hand, focus on fostering knowledge, understanding and critical thinking; on the other hand, it should favour the development of practical skills and empathy, solidarity and care for nature. Finally, culturally appropriate materials relating to local contexts and traditions are believed to be more effective in stimulating the curiosity of different learners.

Furthermore, the interconnectedness of economic, social and natural systems is often stressed as a fundamental aspect to be taught to students. However, the focus is often on the environmental pillar rather than the others. In fact, the European Commission seems to prefer an approach that stimulates awareness of climate change and respect for biodiversity rather than one that pays attention to all aspects

of sustainability. Indeed, the European Commission (2022*a*) states that: *"Education and training needs to critically examine how it is responding to the climate and ecological crises"* (page 6). References to other aspects of sustainability are much rarer.

Peace education and Global Citizenship Education

Peace and peace education rise as relevant issues when looking at the external action of the European Union. Indeed, the European Parliament and the Council (2021) affirm that the participation of women and young people in the decision-making process and in the implementation of peace negotiations, reconciliation processes, conflict prevention and peacebuilding is seen as an added value. Education that promotes a culture of non-violence is fundamental to foster participation, including: *"Supporting formal, informal and non-formal peace education"* (page 61). Furthermore, gender equality is promoted in order to strive for participation that is as inclusive as possible.

Global Citizenship Education also takes on importance within the EU's external action for sustainable development. In an increasing number of countries, sustainability issues are integrated into citizenship education. This type of education recognizes learners as potential leaders and agents of change, whose democratic and civic participation is vital for: *"Addressing the complexities and challenges across all sustainability dimensions: environmental, political, social, and economic"* (European Commission, 2022*a*, page 34). Therefore, Global Citizenship Education is seen as one of the most valuable investments in democracy as it has the potential to empower citizens around the world to contribute to sustainable development. Furthermore, according to the Opinion expressed by the European Economic and Social Committee (2021), knowledge, skills and competences must not only serve the needs of the labour market and competitiveness, but also prepare learners to be active democratic citizens, to reduce educational inequalities and to urge the search for solutions to society's problems. Citizen involvement on sustainable development issues and the SDGs is of particular importance as it is addressed not only to EU Member States, but also to candidate and potential

candidate countries. In fact, the European Parliament and the Council (2021) affirm that it is essential to stimulate learners, especially young people, to be active citizens with democratic values and the ability to solve sustainability problems in order to promote sustainable development even outside the European Union. Ultimately, the promotion of Global Citizenship Education by the European Union is adopted as an external action strategy to strengthen the role of the EU as a global partner in education and training.

Systemic change in education

European documents often state the need for a systematic change in education to ensure that education for sustainable development and other related types of education can be realised. Indeed, the European Commission (2022*a*) affirms that: *"Despite clear progress and growing public and policy attention, learning for environmental sustainability is not yet a systemic feature of education and training policy in the EU"* (page 7). National initiatives often remain limited in time and scope without seeking to bring about systemic change. Therefore, the European Commission believes that, given the climate and biodiversity crisis, the time has come to move beyond isolated initiatives and to go swiftly towards a profound change in the education system.

Some guidance is given on how to achieve systemic change in education. The European Commission (2022*a*) states that: *"Re-visioning education and training and putting sustainability at the heart of its design"* (page 8) is necessary for systemic change. The national education system must be fully reviewed, and sustainability integrated at all levels. Indeed, the concept of mainstreaming education for sustainable development is central in the European Commission's vision: "*Environmental sustainability should be embedded in all education and training policies, programmes and processes"* (European Commission, 2022*a*, page 32). The goal is not to add new elements to the existing system, but to change it, aligning it with the needs of a greener and more sustainable future. In this way, schools, universities, other education and training institutions will be places where

sustainability is actively practised in all its aspects.
The new system must be based on the concept of lifelong learning to offer students of all ages the opportunity to learn and be active in sustainable development. Interdisciplinary approaches and innovative materials should enter the scene. Indeed, as stated by the European Commission (2022*a*), education systems: *"Should be conceived around the entire experience offered to learners, in and outside of the classroom, during dedicated learning time and beyond"* (page 43).

The European Commission (2022*a*) strongly recommends involving stakeholders and building partnerships to effectively achieve systemic change in education. It states that: *"All members of the educational community should be involved in decision-making"* (page 21) and in the development of sustainability and green strategies. In fact, not only the action must be vertically concentrated from the individual effort to the systemic one, but also horizontally among all the bodies, organisations and players involved in education and training.
There are fundamental reasons why engaging with stakeholders to achieve systemic change is critical. The European Commission (2022*b*) states that one of the reasons is to: *"Facilitate the sharing of policy maker, researcher and educator expertise and best practices at system and institution level"* (page 3). Another reason is that early childhood and care centres, schools, higher education institutions, research organisations, VET providers and local communities are becoming increasingly active in relation to climate and biodiversity crises and are therefore key partners. Civil society organisations are also indispensable partners today as they offer support to: *"Vulnerable and marginalised groups by providing basic social services such as health - including nutrition, education, social protection, and access to safe water, sanitation and hygiene"* (European Parliament and the Council, 2021, page 65). They should be involved in efforts to achieve systemic change in education by stimulating their capacity building.
Finally, the actors to be involved, according to the European Commission, are not only those involved in the education and training system but also: *"Business, arts, farms, cultural heritage, sport, research institutes, the educational resources industry (including technology, publishing and other curriculum equipment) and*

educational research" (European Commission, 2022*b*, page 13). All actors who can help bring about systemic change in education should be supported by Member States by providing mentoring and networking, templates and guidance and financial support.

Furthermore, there are factors / policies that can facilitate or hinder systemic change in education. The Council of the European Union (2021*a*) contributes to the reforms needed to deliver systemic change in education with the provision of a cooperation framework. Another factor, described by the European documents as enabling systemic change, is bottom-up participation. It embraces the level of learners in proposing and co-creating curricular approaches, learning methods and learning infrastructures. In doing so, the Council of the European Union recommends an inclusive approach: *"Encourage a gender-balanced participation of learners from all backgrounds, including those with fewer opportunities"* (Council of the European Union, 2022*a*, page 5).

The focus is on the empowerment and participation of young people, especially the most vulnerable. They should be financially supported and offered practical and technical assistance to help them develop solutions to address environmental issues. The sphere of possibilities in which to involve young people is wide: *"Their local communities, including, where possible, education and training institutions, youth and youth work organisations, as well as local and regional authorities"* (Council of the European Union, 2022*b*, page 11). Support should be provided to communities, especially the most marginalised and vulnerable ones, to increase the possibility for young people to actively participate in them. Youth volunteering activities are also encouraged. Combining local or national volunteering with transnational volunteering is considered an effective way to promote the empowerment and participation of young people in addressing not only environmental issues, especially those that address climate change and aim to preserve biodiversity, but also to strengthen the sense of belonging to the European Union. The aim of encouraging the participation of all young people in political life from the local to the European level is to provide them with the means to be actors

and drivers of change towards sustainable development and in the fight against climate change.

On the other hand, there are barriers to systemic change in education. According to the European Commission (2022*a*) the barriers are: *"Established cultures and norms in education policy and practice"* (page 7). Furthermore, another obstacle is that in some European countries, education actors are not sufficiently equipped with the resources and knowledge to address sustainability issues in a positive way. In addition, curricula are often overloaded, and the general workload of leaders, educators and students take time and resources. This makes it very difficult to get a situation where: *"Sustainability incorporating all areas of activity"* (Council of the European Union, 2022*a*, page 3).

Furthermore, systemic change in education cannot be achieved without the right management and leadership. The European Commission (2022*a*) highlights the need to train and support educational leadership groups for the mainstreaming of environmental sustainability in education and systemic change to be possible. Indeed, it is beneficial: *"Training the principals, rectors and other leaders of institutions matters, because they can further support staff and generate a positive organisational culture in relation to sustainability"* (European Commission, 2022*a*, page 21). Additionally, education leaders can play a key role in raising awareness, motivating and engaging all staff in developing a shared vision of sustainability and promoting systemic change. The more people are involved and guided by clear leadership, the more possibilities there are for a change in the education sector that sees sustainability integrated in every aspect. Finally, political leaders should be convinced to pursue systemic change not only in education but also in other sectors to provide the necessary support and an enabling environment.

The concept of the whole-institution approach emerges with particular emphasis from the analysis of the European documents. According to this approach, systemic change in education is only possible if the whole institution is involved in the change. It embraces the elements previously discussed as it has been defined in the

following way: *"WIA (whole-institution approach) encompasses teaching and learning, planning and governance, active learner and staff participation, management of buildings and resources (e.g., energy, waste and water reduction) as well as partnerships with local and wider communities"* (European Commission, 2022*a*, page 7). It enables schools, higher education institutions and other institutions to respond to new and complex challenges by helping them move from isolated examples of individual teacher sustainability projects to sustainable change across whole institutions. The key is to include sustainable practices and processes in all aspects of institutions while not excluding anything and anyone (all levels of governance and management). In this approach, a clear institutional vision and concrete actions by the school management are required. In this way the school culture can change, and a virtuous circle can be promoted in which positive attitudes on the part of all actors promote sustainable change.

Finally, systemic change in education needs to be monitored. Indeed, since systemic change is a long-term process, there is a need to monitor and evaluate small measurable steps on an ongoing basis. The European Commission (2022*b*) suggests that this can be done: *"Through self-evaluation by the institution"* (page 13).

Universities

Universities are described in European documents as major players in education for sustainable development and awareness of climate change. Indeed, sustainability has been progressively integrated into higher education curricula, although strong disparities persist in the level of such integration. The University Educators for Sustainable Development (UE4SD) initiative, funded by the European Commission and running from 2013 to 2016, is mentioned by the European Commission (2022*a*). The aim of the initiative was to improve professional development opportunities for academic staff in order to reorient higher education towards ESD. Although some progress is visible, the European Commission (2022*a*) mentions that academic educators: *"Rarely critically reflect on their own teaching or competences for sustainability"* (page 21). One solution suggested to Member States is to approve acts on higher education, which can be implemented through

action plans. These measures can offer a framework for universities on how to clearly and similarly integrate education for sustainable development within universities and adapt to the green and digital transitions. The framework of the European Universities initiative can help in curricula innovation in order to foster the employability of students in the context of the green and digital transitions.

Furthermore, the Council of the European Union (2021*a*) stresses that the European Education Area will help transforming higher education as follows: *"With a focus on inclusion, innovation, connectivity, digital and green readiness and international competitiveness, as well as fundamental academic values and high ethical principles, as well as employment and employability"* (page 20). At the heart of the European Education Area is the adaptation of higher education to the transformation towards a more sustainable, resilient and inclusive Europe. To promote this transformation, all learners, teachers, researchers and staff need to be equipped with: *"The necessary knowledge, skills and competences to drive the transformation towards a more sustainable, resilient and inclusive Europe"* (Council of the European Union, 2021*b*, page 17). Digital skills are considered among the most important. Innovative models of digital learning and teaching through Open Science, Open Education and Open Data practices are recommended. The Council of the European Union (2021*b*) highlights how important it is that efforts are made to make digital skills accessible to all since: *"The pandemic has also revealed weaknesses regarding equitable access and support for students, staff, and researchers, in particular those with fewer opportunities and lower digital competences, as well as mobile early career researchers"* (page 16).

To incentivize universities to engage effectively with sustainability, the European Commission (2022*b*) recommends Member States to reward universities by providing funding if some efforts can be found in sustainability mainstreaming. One way to check whether progress has been made can be to monitor the development of green skills by higher education VET graduates and early career researchers. Finally, universities can be encouraged to create campuses, centres and masters on human rights, democratisation and sustainability issues by providing grants to:

"Global Campus of Human Rights, the European Inter-University Centre for Human Rights and Democratisation, providing a European Master's Degree in Human Rights and Democratisation, and its associated network of universities delivering human rights postgraduate diplomas, including scholarships to students and human rights defenders from third countries" (European Parliament and the Council, 2021, page 35).

Knowledge and skills

In the European documents there are references not only to knowledge and guidance on how to change individual behaviour in a more sustainable way by adopting healthier and more environmentally friendly lifestyles, but also to enable citizens to be actively involved in sustainable development and be catalysts for change. The European Commission (2022*a*) specifies this theme: *"The educational offer for our students and researchers must not only teach them a set of sustainability themes, but enable them to live and behave in a sustainable way"* (page 13).

The European Commission has developed a European Competence Framework for Sustainability to support students, educators, policy makers and other stakeholders in identifying the knowledge and skills needed for sustainable development. The European Competence Framework for Sustainability provides a conceptual model of reference that everyone can use for various purposes, such as: *"Raising awareness on the importance of learning for environmental sustainability; designing learning opportunities aimed at developing sustainability competences and assessing where one stands in supporting learners to develop sustainability skills"* (European Commission 2022*a*, page 97).

Teaching emotional skills and encouraging a sense of hope in the face of climate change is recommended. In fact, some young people stand helpless in front of such a complex and multifaceted phenomenon. Intergenerational learning can help teach young people old knowledge and convey greater confidence. Another piece of advice that can be helpful to young people and adult learners is to teach critical thinking. More specifically: *"Stepping up critical thinking will help them go beyond just passively understanding sustainability concepts"* (European Commission,

2022*a*, page 89). Cognitive processes, problem-solving, intuition and creative thinking are all interrelated and part of critical thinking. Furthermore, on the one hand, it promotes a critical understanding of interlinked global challenges, including the climate crisis, environmental degradation and loss of biodiversity, all of which have environmental, social, economic and cultural dimensions. This requires reliable evidence-based information and data so that students can make informed judgments about challenges related to the environment, biodiversity and climate change. On the other hand, it stimulates learners to find solutions to these challenges.

To support positive action, it is recommended to encourage national and international volunteering activities that address environmental and sustainability issues. These activities help students to become agents of change or to ask policymakers for sustainability actions and: *"Volunteering, to confront and reduce the fear and disempowerment that learners might experience in the face of the planetary crises"* (Council of the European Union, 2022*a*, page 6).

Furthermore, European documents suggest some recommendations on how to make learning for sustainability engaging and positive. First, learning for sustainability requires interdisciplinary approaches, integrating knowledge and skills from different fields.

Additionally, teaching in stimulating environments, such as those that allow you to connect with nature, can increase learners' passion and engagement. Indeed, as stated by the European Commission (2022*a*): *"Knowledge about natural phenomena can spur us on to more closely connect with nature, which in turn can motivate further learning about sustainability"* (page 86).

The reference to the development of knowledge and skills is closely linked to the needs of the green and digital transitions. The key words "reskilling" and "upskilling" are largely present and linked to employability in the green and digital evolved labour market. They are connected to the acquisition of green and digital skills in the workplace, deemed necessary for green growth and increasingly needed in the labour market.

Regarding digital skills, the Digital Education Action Plan is, according to the Council of the European Union (2022*a*), a useful policy for Member States. It: *"Underscores the importance of digital technologies as powerful enablers for the green transition whilst, at the same time, facilitating a move towards sustainable behaviour in both the development and use of digital products"* (page 2).
During Covid-19, digital and media literacy became necessary to continue routine practices and remain competitive. Indeed, the crisis has accelerated the digital transition in education, work and daily life. The high number of career transitions that the average European citizen is expected to go through with the green and digital transitions, makes digital skills a truly valuable resource. In fact, as highlighted by the European Economic and Social Committee (2021), the development of workers' digital skills is fundamental: *"To reduce the skills gaps companies face"* (page 28) and as indicated by the European Commission (2022*c*): *"Reinforcing skills, including digital skills, is expected to improve productivity"* (page 10). Therefore, the development of basic and advanced digital skills and competences at all levels and types of education and training (formal, non-formal and informal) is deemed necessary to meet the needs of the economy and society.

Digital technologies and platforms can also be a tool to improve the experience in teaching and learning about sustainability issues. Indeed, they can play an important role in making learning environments, learning materials and teaching methods adaptable and suitable for different learners. Digitization is seen as an enabling factor for sustainable development both as it has a lower impact on the environment and as a tool to promote greater knowledge of sustainability practices. Therefore, Member States should encourage information and communication technologies that promote digital literacy and skills. Despite this, the European Commission (2022*a*) states that: *"The role of digital technologies in learning for sustainability was seen as an area which is currently underexplored"* (page 59). Intensification of research, sharing of best practices and further implementation of the Digital Education Action Plan is believed to be necessary to explore the opportunities of using digital tools and technologies. Furthermore, it is recommended that digital education be learner-

centred, supporting all individuals and citizens to develop their personality and skills with confidence and freedom.

Reference is then made to the skills necessary for the transition to climate neutrality. Within this set are the skills to empower energy consumers to identify steps, mechanisms and actions to reduce the impact on the environment by changing consumption patterns through: *"Education campaigns, information tools, such as online price and service comparison tools, single access points, self-production and self-consumption models"* (European Commission, 2021, page 32). The promotion of sustainable consumption skills aims to make consumers able to deal with energy efficiency, water and waste management and all other relevant skills for mitigation and adaptation to climate change. Also on the production side, the focus is on offering consumers safe, accessible and convenient products within the logic of the circular economy.

Formal, non-formal and informal education

According to the European documents, the acquisition of the - just mentioned - knowledge and skills takes place both in formal education and in non-formal and informal education. While much of learning for sustainable development can and should take place in formal education and training, from early years to adult education, non-formal and informal education are particularly promoted as ways to contribute and facilitate learning and participation in sustainable development. Indeed, non-formal education is an integral part of lifelong learning for sustainability as it allows: *"Young people and adults to acquire and maintain the skills, abilities and the outlook needed to cope with and adapt to a continuously changing environment"* (European Commission, 2022*a*, page 39). Non-formal education providers include, among others: local community groups, youth associations, the scouting movement, parks, farms, science centres, museums and libraries. They are believed to have considerable potential for achieving sustainability learning by reaching a wider audience than that achieved by formal education. For this reason, the European Commission considers them fundamental actors for sustainable development both on their own and in relations with formal education.

In addition, non-formal education is perceived as more flexible than formal education as it can: *"Adapt to, and adopt, new topics, discoveries and initiatives for environmental sustainability and implement them in new or existing programmes at a faster rate than may be seen in formal education"* (European Commission, 2022*a*, page 39). The attribution of micro-credentials to training courses can be a useful way to open the horizons of formal education by bringing innovative elements. Media, television and social media can also be used to increase citizens' exposure to environmental and sustainability issues. In addition, parents, guardians, grandparents and families can be actively involved in learning about the environment and sustainability.

Furthermore, vocational education and training can contribute to a large extent to education for sustainable development. Their programs are receiving, especially in response to Covid-19, some incentives to become greener, increasing sustainability in the provision and management. Indeed, Member States are increasingly introducing sustainability-relevant elements into VET action plans, funds and other related activities. Besides, apprenticeships can help young people and adults as they: *"Have great potential in providing opportunities to develop the right skills for the green transition for young people in initial education and for adults in need of upskilling or reskilling"* (European Commission, 2022*c*, page 27). The right skills are those encouraged by green and digital transitions: entrepreneurial, digital and green skills. They are perceived as drivers of innovation, competitiveness and growth.

Conclusions

The analysis of the ten selected documents highlighted the issues that explain, in part, the European Union's policy response to Covid-19 concerning education for sustainable development and awareness of climate change.

It has emerged that the institutions of the European Union refer to several different types of education when writing about learning for sustainability. This result is in

line with what was found in the literature review (Chapter 2). Indeed, a variety of types of education have been identified that deal with sustainability issues. However, the results of this study show that the different educations are complementary and are based on similar assumptions. All types of education recognize the basic assumption that the economic, social and environmental spheres are interconnected. Furthermore, the central focus of all is on young people.

However, it appears that learning for environmental sustainability is predominant over other types of education. This is evident when analysing the internal policy of the European Union. This type of education focuses on the present and the future. It aims to raise awareness and to empower learners to take actions on sustainability issues. It provides culturally appropriate knowledge and skills. However, the focus of the European policy response to Covid-19 is on the environmental pillar of sustainability. Social and economic challenges are seen as less relevant challenges than the fight against climate change.

The story changes when we look at the external action of the European Union on promoting sustainable development. Here, Peace education and Global Citizenship Education become relevant. The first is a type of education that promotes a culture of non-violence to encourage participation in peace-building processes. The second promotes democratic and civic participation, considered vital for contributions to all dimensions of sustainability. The reduction of inequalities is one of them. This result is consistent with the more holistic definition of education for sustainable development described in Chapter 2.

A very present theme in the analysis of documents is that of systemic change in education. It is believed that the entire education system needs to change for the effective delivery of education for sustainable development. The end point sees sustainability as a systematic feature of national education and training systems. A whole-institution approach is needed, according to which systemic change is only possible if the whole institution is involved. Sustainability must be integrated at all levels of education systems. The changed system will be based on lifelong learning

and innovative and interdisciplinary approaches. There is a strong influence here of the dynamics of the European Commission's politics. In fact, since the crisis of the climate and biodiversity is represented as urgent, the push for a profound change in the educational system is approached as a necessity, to be done as soon as possible. The broadest possible involvement of stakeholders is perceived as necessary for systemic change. Indeed, this makes it possible to share the skills and best practices of key partners involved in the provision of sustainability services.
The presence of political cooperation frameworks and bottom-up participation are described as other enablers of systemic change. More specifically, including as many people as possible in an inclusive way at all stages of change will motivate everyone to do their best to achieve systemic change. In this way it will be possible to go against established cultures and norms. It will be essential to monitor system change and equip change agents with the necessary resources.
Change is expected to come primarily from young people through communities and volunteer activities.
Finally, the results show that clear management and leadership are essential to motivate and engage change agents, giving direction and vision.

Universities are seen as major players in education for sustainable development and climate change awareness. They can play a vital role in systemic change by integrating education for sustainable development into university curricula and adapt to green and digital transformations. Engaging effectively with sustainability requires a transformation that increases digital skills.

The centrality of digital skills is in fact a central theme not only for universities. Within the set of knowledge and skills necessary for sustainable development, digital skills are portrayed by European institutions as necessary to meet the needs of the green and digital transitions. They foster employability and allow workers to remain competitive. They can also be a tool to enhance the teaching and learning experience of sustainability. However, this adaptation is still underdeveloped.
The knowledge and skills depicted as necessary for sustainable development are instructions and directions to healthier and greener lifestyles. Added to these are the

skills that allow citizens to find their own way to make change. It is important that not only cognitive skills are transmitted to learners, but also emotional skills, considered necessary to face the perception of the impossibility of doing something in the face of such a complex phenomenon as that of climate change. For this reason, the response to Covid-19 by the European Union pushes the use of critical thinking and intergenerational learning and teaching in stimulating environments. Finally, more technical skills are described as necessary for the transition to climate neutrality. The responsibility for learning these skills to reduce the impact on the environment rests primarily with individuals. On the production side there is only the recommendation to offer products that operate within the circular economy model.

As a final theme, the results of the research highlighted a particular promotion by European institutions of non-formal and informal education, alongside formal training. Non-formal and informal education integrate well into lifelong learning and as a response to a constantly changing environment characterised by the crisis triggered by Covid-19. In addition, they can reach a wider audience and are more flexible, bringing innovative elements into the curricula and teaching methods of sustainability. Vocational education and training are an example of a positive way of integrating sustainability.

CONCLUSIONS

The starting point of this thesis was the observation that education for sustainable development and awareness of climate change are not new concepts. However, interest in this type of education has grown in recent years, as can be seen from the expansion of funding for environmental and sustainable development education programs. Education for sustainable development and awareness of climate change have entered the political agendas of international, supranational and national organisations. With the advent of the crisis triggered by Covid-19, organisations have had to react with political responses that reflect specific political preferences. The overall aim of this thesis was therefore to explore the EU's policy response to the Covid-19 crisis with regards to education for sustainable development and awareness of climate change. The qualitative analysis of ten documents published by the various institutions of the European Union was chosen as the most suitable method to reach the aim of the thesis.

In these last pages of the thesis the conclusions will be discussed. The conclusions will retrace the themes dealt with in the various chapters, focusing on the discussion of the results of the empirical analysis.

From the thesis work and from the analysis carried out in Chapter 4, it emerged that the European Union's response to Covid-19 was characterised by the prioritisation of some issues, which were already part of the political program of the organisation. In fact, among these issues, the European Union had declared in various treaties and strategies, before the advent of Covid-19, to commit itself to pursuing the goal of sustainable development in Europe and in the world. In addition, the academic literature analysed in Chapter 3 has highlighted how the concept of sustainable development was already part of the political vision of the European Union. Education for sustainable development was also part of this framework. The advent of the crisis triggered by Covid-19 has affected all areas of EU public policies. As a result, the European Union responded with measures that led to unprecedented policies, in which EU politics played a crucial role in determining their structure and priorities. Education and the fight against climate change were part of the

agreement found on defining priorities. In addition, sustainable development has been included in the crisis policy response strategy with green and digital transitions playing a crucial role. Therefore, in line with Symeonidis et al. (2021) there was a continuation between the EU's pre- and post-Covid-19 strategy in the education sector combined with the strengthening of some issues.

Greater emphasis has been placed on acquiring green and digital skills in the framework of the European Green Deal and the Erasmus + Programme. This fact was also confirmed by the results of the qualitative analysis. These in fact indicate how the educational strategy adopted by the European Union to respond to the crisis triggered by Covid-19 is strongly centred on the development of the knowledge and skills necessary for the green and digital transitions. From the analysis of the documents, it emerges how digital skills are portrayed by the European institutions as indispensable to favour competitiveness and employability in the first place. Education is therefore seen as an enabling factor for development leading to greater economic growth. Here the great attention paid to education and vocational training aimed at employability takes on relevance. Vocational education and training is described as a positive way to integrate sustainability by providing useful skills to facilitate green and digital transitions and by introducing innovative and flexible elements into ESD curricula. This professional training constitutes an element of continuation in the education policy framework between before and after Covid-19. Indeed, as seen in Chapter 3, when it comes to vocational education and training (VET) and the recognition of professional qualifications, the power of the EU has always been greater than in other areas of education, relegated to the responsibility of the Member States.

Furthermore, the analysis of documents shows a predominance of learning for environmental sustainability over other types of education that have to do with sustainable development, when considering the internal policy of the European Union. Indeed, within the green and digital transitions, more importance is given to the skills needed to have a positive impact on the environment. Other issues such as social and economic challenges are described as less relevant. This result agrees with the findings of the analysis of the European Union treaties and regulations in

Chapter 3. Indeed, a predominant focus on the environmental pillar was found. From this result it can be deduced that the strategy adopted by the European Union in internal politics is to speak of an education for sustainable development which apparently addresses the complexity of sustainable development but which in practice focuses more on the skills necessary for the green transition. The European Union's perception of education for sustainable development is what has been identified in Chapter 2 as the narrow definition of ESD. Indeed, education for sustainable development is reduced to a single pillar and is called learning for environmental sustainability. Although there are references to the multidisciplinary and transdisciplinary nature of ESD, the three pillars of sustainability, plus the cultural dimension (in line with Čiegis & Gineitienė, 2006), seem to have less importance in the political response of the European Union. However, it must be said that the frequent mention in European documents of critical thinking, intergenerational learning and learning in stimulating environments balances the utilitarian tendency of the European response.

On the other hand, when looking at the external action of the European Union, the socio-cultural dimension acquires significance. Indeed, education is represented here as inclusive of the promotion of a culture of non-violence, of participation in peace-building processes, but also of democratic and civic participation in order to reduce inequalities. A more holistic definition of education for sustainable development is therefore part of the EU's external action, in which the socio-cultural sphere is added to the environmental one. This broader conception of ESD is in line with the definitions provided by UNESCO (2009) and Agbedahin (2019). A difference can therefore be deduced between the EU's internal and external policy response. Indeed, ESD in this second case is about learning sustainable lifestyles, human rights, gender equality, peace and nonviolence, global citizenship, cultural contribution and diversity and being active agents of change. This broad vision of the role of education for sustainable development supports the UN 2030 Agenda, as described in Chapter 2.

The results of the empirical research also showed that young people are placed at the centre of the policy response to Covid-19 regarding education for sustainable development and awareness of climate change. In fact, while in the literature

analysed in Chapter 2 (McKeown, 2002; UNESCO, 2009, for example) the target of ESD is as broad as possible, from young people to adults within lifelong learning, the results showed a particular focus on young people. Indeed, young people are not only portrayed as those to whom the teachings are directed the most, primarily those on the environment, but they are also expected to be the major contributors to change towards sustainable development. The European Union response to Covid-19 seems to be addressed to young individuals and youth associations. It can therefore be deduced that a type of education directed to individuals rather than directed towards productive actors is proposed.

The European Union also focuses heavily on the need for Member States to push for systemic change in education. This element is in line with the authors who believe that a total reform of the system is necessary to truly achieve sustainable development. However, the strategy adopted by the European Union is not as radical as those proposed by Gadotti (2008) and Wals and Kieft (2010). In fact, it is the conviction of the European institutions that the entire education system must change for the effective provision of education for sustainable development and sustainability. Sustainability must become a systematic feature of national education and training systems, involving the whole institution. Nonetheless, the European Union does not believe that without a radical change in the current economic model to embrace one that relies on sustainability, education for sustainable development will not achieve its goals.

Furthermore, in line with UNESCO's vision of the ideal ESD structure, consisting of formal, non-formal and informal modalities, the European Union believes that the widest possible stakeholder engagement is necessary for systemic change. It promotes bottom-up participation, which nevertheless is addressed by clear management and leadership from above.

In addition to young people, universities have also been placed at the centre of the European response to the crisis triggered by Covid-19. The latter have been given a vital role in the vision of systemic change, by integrating education for sustainable development into university curricula. The goal is still adaptation to the green and digital transformations. Indeed, the integration of sustainability within European

universities seems to be directed more towards the acquisition by students of the skills useful for the green jobs market (in line with Pociovălișteanu and others, 2015) rather than providing the tools to make a significant change towards sustainable development. Furthermore, the importance attributed to universities within the Covid-19 response strategy represents an element of continuation with the past. Indeed, the influence of the European Union in higher education has been intense compared to other levels of education. Standardisation and collaboration have been promoted thanks, above all, to the Bologna process. It therefore makes sense that in the response to Covid-19 attention was paid to sustainability and education for sustainable development in universities.

Furthermore, from the work carried out in this thesis it can be deduced that the type of response adopted by the European Union brings with it a certain responsibility and legitimacy as argued by Ortmann (2010) and Gärtner et al. (2017), cited in Chapter 1. Indeed, the EU response to education did not mean simply reacting to the crisis; it involved actions, mainly through generous funding schemes and support initiatives. The political priorities, which have been chosen, have been legitimised as necessary for the green and digital transitions. It played a role that the responses were part of a discourse (as argued by Shmidt, 2008) that portrayed a type of learning for sustainable development based on the idea of investing in people as a factor of growth and competitiveness, and only secondarily as a key tool to achieving a society based on sustainable development.

In sum, from the results of the empirical analysis compared with those of the previous chapters it can be deduced that it is true that the European Union has adopted tools such as the Next Generation EU with the Resilience and Recovery Facility and the new European Education Area by 2025, the Multiannual Financial Framework (MFF) 2021-2027 and the Erasmus + program updated with the Program Guide 2022, whose priorities refer to innovation, digitization, sustainable development and climate action, initiatives aimed at young people and education. However, the European Union would seem to invest only in a narrow vision of sustainable development and education for sustainable development and awareness of climate change. Apparently, in fact, it seems to want to provide a vision that embraces the three concepts in a holistic way. However, the focus on the

environment and the skills for digital and green transitions predominate, at least in the internal policy of the EU. Little space is therefore left for an education that aims to equip people with knowledge and skills that can help them find new solutions to environmental, economic and social problems (McKeown, 2002; UNESCO, 2009) and, as also underlined by Huckle (2014), to help them reflect and act on the meanings they have learned. This will then help learners envision and shape future societies in more informed and democratic ways not only as better economic actors but as citizens. The very recent adoption by the Council of the European Union, on June 16, 2022, of a Recommendation on learning for the green transition and sustainable development could lead Member States to finance more education for sustainable development activities. A debate could also arise that could lead to a greater alignment of the European vision of the ESD with the international standards of the 2030 Agenda. A problem arises from the fact that responsibility for the implementation of education lies with the Member States, creating disparities in the implementation of education programs for sustainable development.

Some implications for further research can now be discussed. First, researchers wishing to undertake similar research could consider analysing more documents published by European institutions on education for sustainable development and climate change awareness. Furthermore, a better sampling strategy could be used to obtain a more representative sample. Interviews with experts working in the design and implementation of European projects related to education for sustainable development and awareness of climate change can be useful to better understand the dynamics of the EU policy response to Covid-19. Furthermore, further research on issues that have been given little attention in this small study could not only advance the theory, but also bring to the attention of policy makers the need to address certain aspects when designing policies. For example, the role played by civil society in shaping the response to Covid-19 in terms of education for sustainable development could be investigated. In addition, as this study was unable to investigate the reason for a possible difference between the EU's internal and external policy to respond to Covid-19, it may be relevant to investigate this topic further.

Recommendations for policy and intervention will now be discussed. From what was discussed in Chapter 2 on international instruments, in Chapter 3 on European Union policies in the field of education and especially from the results of the empirical analysis, the following elements emerge. First, efforts must be continued and intensified to promote education for sustainable development and awareness of climate change. Policies and practices for this type of learning should be further stimulated and supported by Member States. It is also necessary to recognize the need for interconnected learning across the environmental, economic and social pillars of sustainable development. Moreover, education on and for sustainable development should be established as one of the priority areas in education, training policies and programmes in order to support and enable the sector to contribute to a sustainable future. One way to do this is to make effective use of EU policies and funding instruments to support the implementation of national measures and actions to recover from the Covid-19 crisis. Finally, to invest effectively in education for sustainable development it is crucial to incorporate sustainability holistically into all education and training policies, programs and processes and to adopt a whole-institution approach.

To conclude, this study highlighted insights into the EU's policy response to Covid-19 regarding education for sustainable development and awareness of climate change. It was found that education for sustainable development and awareness of climate change occupy an important place in the response to Covid-19, supported by funds, but of a limited scope compared to what is defined and desired by the UN. Eventually, these results could help design policies that reflect some of these insights.

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APPENDIX

Appendix 1

Figure 1 Structured code tree

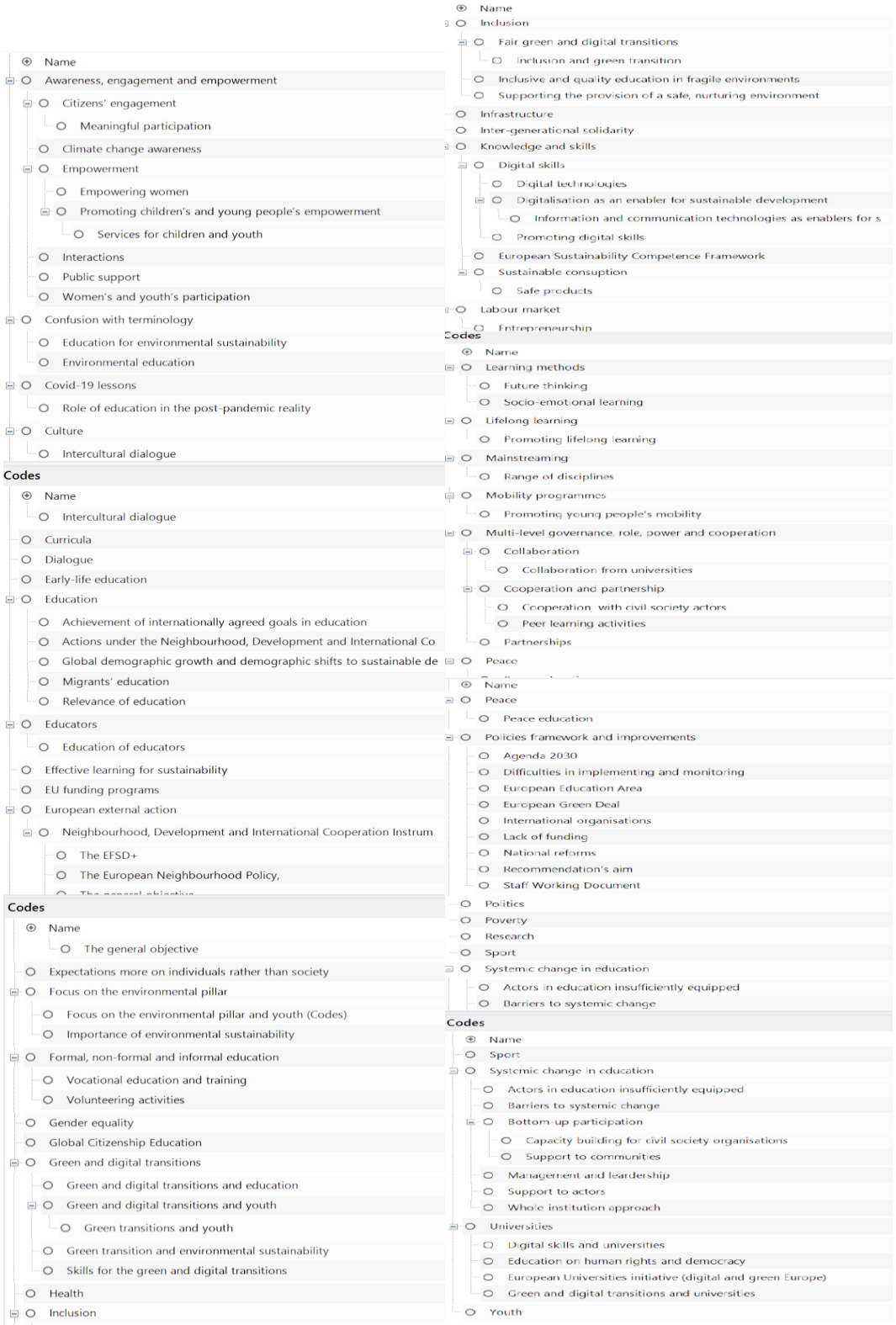


Figure 2 Relationship codes

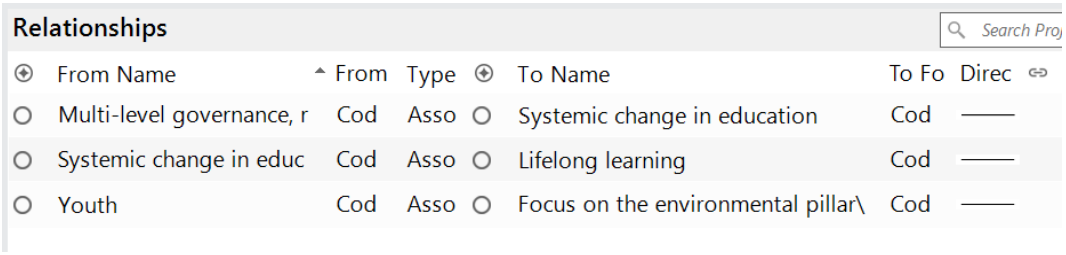


Figure 3 Enabling factors to systemic change in education

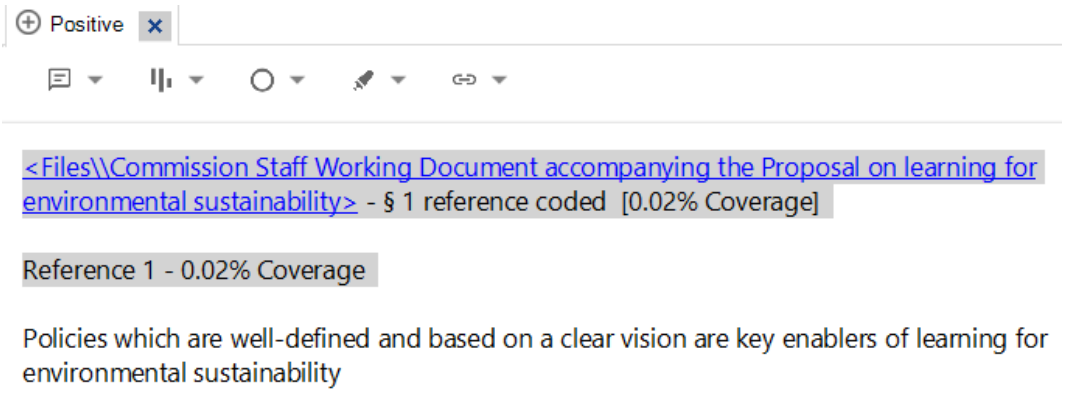
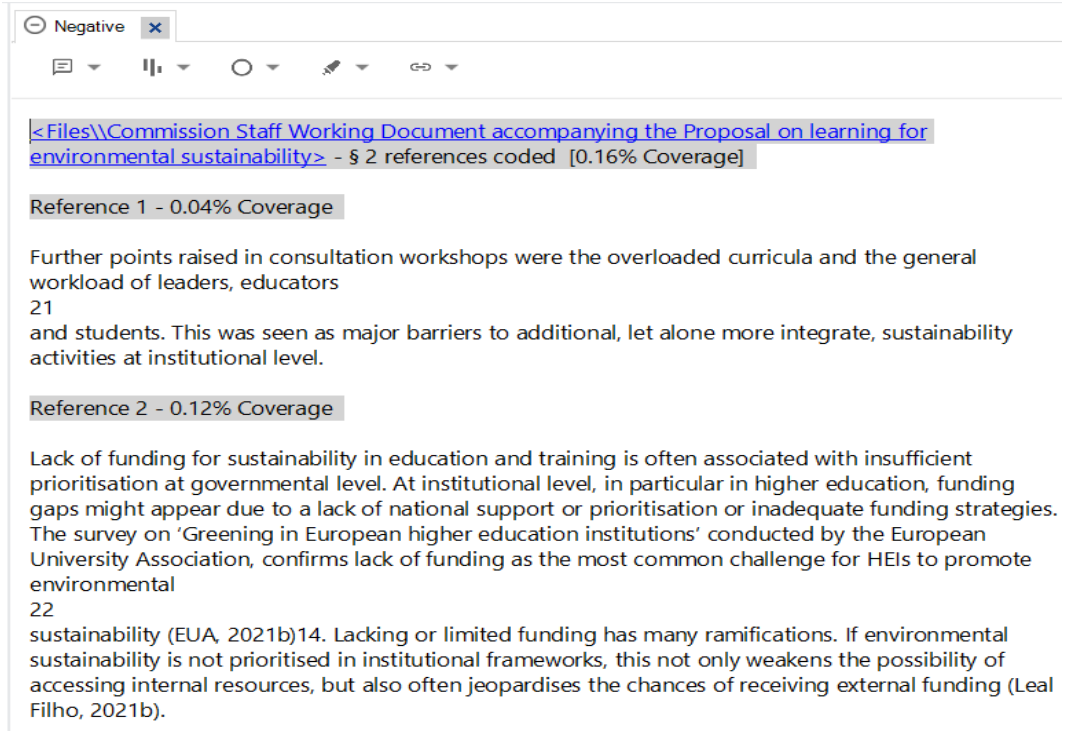


Figure 4 Barriers to systemic change in education



Appendix 2

Table 1

File number	Complete name	Shortened name	Number	Date	Other information	Available at
1	Regulation (EU) 2021/947 of the European Parliament and of the Council of 9 June 2021 establishing the Neighbourhood, Development and International Cooperation Instrument – Global Europe, amending and repealing Decision No 466/2014/EU of the European Parliament and of the Council and repealing Regulation (EU) 2017/1601 of the European Parliament and of the Council and Council Regulation (EC, Euratom) No 480/2009	European Parliament and the Council (2021)	2021/947	14/06/2021	Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R0947
2	Council Recommendation of 16 June 2022 on learning for the green transition and sustainable development (2022/C 243/01)	Council of the European Union (2022*a*)	2022/C 243/01	16/06/2022 (date of adoption)	Text with EEA relevance Form: Recommendation Author: Council of the European Union CELEX number: 32022H0627(01)	https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022H0627%2801%29&qid=1661436346943
3	Proposal for a Council Recommendation on learning for environmental sustainability	European Commission (2022*b*)	2022/0004 (NLE)	14/01/2022	Text with EEA relevance COM (2022) 11 final SWD (2022) 3 final Form: Proposal for a recommendation	https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022DC0011&qid=1661436346943

					Author: European Commission, Directorate General for Education, Youth, Sport and Culture	
4	Conclusions of the Council and the representatives of the governments of the Member States, meeting within the Council - Fostering engagement among young people as actors of change in order to protect the environment (2022/C 159/07)	Council of the European Union (2022*b*)	ST/7769/2022/INIT	05/04/2022 (date of adoption)	CELEX number: 52022XG0412(01)	https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022XG0412%2801%29&qid=1661436346943
5	Council Resolution on a strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030) (2021/C 66/01)	Council of the European Union (2021*a*)	2021/C 66/01	26/02/2021 (date of publication)	Author: Council of the European Union From: Resolution	https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32021G0226(01)
6	Council conclusions on the European Universities initiative – Bridging higher education, research, innovation and society: Paving the way for a new dimension in European higher education (2021/C 221/03)	Council of the European Union (2021*b*)	ST/8658/2021/INIT	17/05/2020 21 (date of adoption)	CELEX number: 52021XG0610(02)	https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021XG0610%2802%29&qid=1661761445096
7	Commission Staff Working Document Accompanying the document Proposal for a Council Recommendation on learning for environmental sustainability {COM (2022) 11 final}	European Commission (2022*a*)	SWD/2022/3 final	14/01/2022	Author: European Commission, Directorate - General for Education, Youth, Sport and Culture	https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022SC0003&qid=1661762192658
8	Opinion of the European Economic and Social Committee on 'How to promote, based on education and training, from a lifelong learning perspective, the skills needed for Europe to establish a more just, more	European Economic and Social Committee (2021)	EESC 2020/05326	16/07/2021	Author: European Economic and Social Committee Rapporteur: Tatjana	https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020

	cohesive, more sustainable, more digital and more resilient society' (Exploratory opinion at the request of the Portuguese presidency) (2021/C 286/06)				Babrauskienė	AE5326&qid=1661760485154
9	Commission Staff Working Document 2022 Country Report - Spain Accompanying the document Recommendation for a Council Recommendation on the 2022 National Reform Programme of Spain and delivering a Council opinion on the 2022 Stability Programme of Spain {COM (2022) 610 final} - {SWD (2022) 640 final}	European Commission (2022*c*)	SWD/2022/610 final	23/05/2022	Author: European Commission	https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022SC0610&qid=1661763605898
10	Commission Staff Working Document Accompanying the Proposal for a Council Recommendation on ensuring a fair transition towards climate neutrality {COM (2021) 801 final}	European Commission (2021)	SWD/2021/452 final	14/12/2021	Author: European Commission	https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021SC0452&qid=1661760323404