A Long Way To Go: A Comparative Study on the Implementation of Education for Sustainable Development in Secondary Education in Finland and the Philippines

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Master's Thesis in Education
Master's Degree Programme in Teaching and Learning (TLearn)
Faculty for Education and Welfare Studies
Åbo Akademi University
Vaasa, 2023

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Abstract

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Title: *A Long Way To Go*: A Comparative Study on the Implementation of Education for Sustainable Development in Secondary Education in Finland and the Philippines

Unpublished thesis for master's degree in education Pages: 98

Vaasa: Åbo Akademi University. Faculty for Education and Welfare Studies

Abstract

Education is the main force that drives long-term sustainability, and it remains a vital tool of any policy relating to sustainable development (SD). This research aims to bring to light the perspectives of educators on the implementation of Education for Sustainable Development (ESD) in the secondary education system of Finland, and the Philippines. Additionally, the purpose of this study is to provide insights into the improvement of ESD in the school system, as well as to understand the implications of ESD in countries with more resources and fewer resources using a comparative perspective. This study's data was gathered through semi-structured interviews with 11 informants from both countries and analyzed using the thematic analysis approach. Throughout the data, three themes emerged: the current implementation of ESD, the factors influencing implementation, and the problems and hurdles that impede implementation. There are also similarities and differences between Finland and the Philippines within these themes. Both countries implement ESD through the integration of ESD in the curricula, cooperation of stakeholders and actors, teaching, and school-based initiatives and programs. The implementation of ESD in both countries is also a choice of schools and teachers and is hindered by attitudes and perspectives, lack of monitoring and evaluation, and lack of teachers' knowledge of ESD. There are also differences between the two countries in terms of the three themes. This includes the autonomy of schools and teachers, the importance of research, challenges in integrating ESD in school subjects, attitudes and perspectives, and excessive class sizes among others. These findings indicate the need for addressing the four dimensions of ESD, namely: the conceptual (how we view ESD), educational (how we teach ESD), logistical (how we fund ESD), and attitudinal (how we feel towards ESD).

Keywords: Education for Sustainable Development (ESD), Education for Sustainability (Efs), Sustainability Education, Comparative Study, Finland, Philippines

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Definition of Terminologies

Term	Definition
Environmental and Sustainability Education (ESE)	A shorthand term that refers to the "multiple traditions of environmental learning that happen at all levels of education", including environmental education (EE), education for sustainable development (ESD), place-based education, nature-based learning, etc. (Ontario Institute for Studies in Education, n.d.).
Environmental Education (EE)	Learning that "inspires a sense of personal responsibility for the environment; creates a commitment to sustainable living; and supports an ongoing dedication to environmental stewardship" (Ontario Institute for Studies in Education, n.d.).
Education for Sustainable Development (ESD), Education for Sustainability (EfS), or Sustainability Education (SE)	Learning that fosters sustainable development (Lu & Zhang, 2013) and urges us to investigate the intricate relationships that exist between societal, ecological, and economic systems. ESD also encourages a sense of personal accountability for the economy, society, and environment while also promoting flexibility, creativity, and critical thought (Ontario Institute for Studies in Education, n.d.).

1. Introduction

Education is the main force that drives long-term sustainability, and it remains to be a vital tool of any policy relating to sustainable development (SD). This philosophy of learning that fosters sustainable development is what perpetuated the current prominence of Education for Sustainable Development (ESD) (Lu & Zhang, 2013; Jucker & Mathar, 2014). Most research in the academic literature conceptualizes ESD as a specific type of Environmental and Sustainability Education (ESE) (Kolleck, 2019). For instance, the Ontario Institute for Studies in Education (OISE) (n.d.) uses ESE as a shorthand term that refers to the "multiple traditions of environmental learning that happen at all levels of education", including environmental education (EE), education for sustainable development (ESD), place-based education, nature-based learning, etc. Hence, it is crucial to note that in this study, ESD refers to "learning that fosters sustainable development" (Lu & Zhang, 2013).

In terms of the implementation of ESD in schools, however, there is an overall lack of research using Low- and Middle-Income Countries (LMICs) and High-Income Countries (HICs) perspectives, specifically between the Philippines and Finland. More importantly, since ESD is a concept that is difficult to unequivocally define due to its varied form manifestations around the world, this study employs a comparative approach as a valuable means to juxtapose the educational practices and factors that promote ESD in the countries involved. Therefore, this research aims to examine the ways in which Education for Sustainable Development (ESD) is implemented in the secondary education of the Philippines and Finland. This will gain insight into the implementation as well as the political, cultural, and social climate surrounding ESD in Finland. This chapter introduces the study by first discussing the background and context, followed by the research problem, the research aims, objectives and questions, the significance of the study, and finally, the limitations.

1.1. Background of the Study

Whether we view Sustainable Development as "our greatest challenge" or "a subversive litany" (Vare & Scott, 2007), there remains to be a global consensus on the role of education in achieving sustainability. Studies recognize that current economic development trends are unsustainable and that public awareness, education, and training are what pave the way to moving society toward long-term sustainability. In theory, ESD aims at encouraging the transformation of education so

that it can contribute effectively to the reorientation of societies toward sustainable development (Buckler & Creech, 2014b). In practice, ESD requires equipping students with the knowledge, competencies, principles, and mindsets they need to become "global and cultivating" inhabitants of sustainable societies (Michelsen & Wells, 2017). However, the overall essence of ESD transpires beyond teaching and learning. Despite ESD being frequently associated with the adoption of environmental sustainability (Robottom et al., 2007), with some researchers calling it the "ecologization" of schools targeted at awareness and behavior (Rauch, 2002), studies argue that the essence of ESD transcends beyond the concept of environmental education (EE) (Vargas, 2000), requires more than just attitude change (Arbuthnott, 2009), and must not be treated merely as an "add-on" (Buckler & Creech, 2014b) to educational policies. Studies urge that merely adding ESD into curriculums is not adequate and to truly realize ESD requires a complete transformation of the educational system.

Paradoxically, since its inception, the incorporation of ESD at all educational levels became a global goal and countries have increasingly committed to integrating ESD into their educational systems. Notwithstanding arguments calling it an "indoctrination" and a "purpose" (McKeown, 2002), many ESD policies and programs in primary and secondary education gain legitimacy by being linked to national education policies (Benavot, 2014). This resulted in the need to reorient basic and secondary education to address sustainability, which also gained international attention. Consequently, ESD manifests itself in many different forms around the world (McKeown, 2002). Specifically, the objectives and implications of ESD vastly differ especially in a polarized world divided based on economic income, specifically between Low- and Middle-Income Countries (LMICs) and High-Income Countries (HICs).

The lack of studies in terms of ESD research between HICs and LMICs highlights the need for a comparative approach to investigate how ESD is implemented in various countries. The polarization between these income groups reveals a significant gap in knowledge regarding the integration of ESD into educational policies. Despite the increased global attention and focus on ESD research and discourse, only a few studies have taken a comparative approach to examine how ESD is implemented in LMICs and HICs, particularly between the Philippines and Finland. By using the terms HICs and LMICs interchangeably with developed and developing worlds, this paper aims to highlight the importance of examining the differences in how ESD is implemented

in different countries with varying economic and social contexts. It is imperative to conduct a comparative study of ESD implementation in these countries to identify best practices, challenges, and opportunities for improvement.

The Philippines and Finland are interesting case studies for a comparative analysis of ESD implementation due to their diverse economic, social, and political contexts. The Philippines is an LMIC with a rapidly developing economy and a large population, while Finland is an HIC with a small population and a well-established education system. A comparative analysis of these two countries' experiences can provide valuable insights into the challenges and opportunities for ESD implementation in different contexts. Through this approach, this thesis can identify effective strategies to integrate ESD into educational policies and address the global challenges of sustainable development.

1.2. Research Problem

ESD takes many different forms around the world due to its necessity to consider local environmental, economic, and sociological aspects (McKeown, 2002). Hence, numerous studies have investigated the integration, implementation, and practice of ESD across different systems through comparative studies (Fredriksson et al., 2020). However, these studies have focused mainly on comparing developed countries. More so, comparative studies on the topic of ESD in Secondary Education have limitedly been explored between countries belonging to the HICs and the LMICs. This reduces the possibility of understanding the developments and intricacies of ESD across various social, political, and economic contexts. Overall, the existing literature is inadequate in terms of wider comparative scope. This could be a major impediment to gaining better perspectives on the integration of ESD into educational policies, collaborative learning, and global benchmarking, and in gaining a better understanding of educational innovation that could contribute to educational reforms.

1.3. Research Aims, Objectives, and Questions

Given the limited research regarding the implementation of ESD in Secondary Education between countries belonging to the HICs and LMICs, this study aims to investigate and compare the implementation of ESD at the secondary education level between Finland and the Philippines, with a focus on educators' perspectives. This research is guided by a main question as well as sub-questions as follows:

How is ESD implemented in Finland and the Philippines from the educators' perspectives?

- What are the factors affecting the implementation?
- What challenges and obstacles hinder the implementation?

1.4. Significance of the Study

This study will contribute to the body of knowledge on ESD by utilizing a comparative approach from the perspective of the HICs and the LMICs. Albeit comparative research on public educational policies is difficult (Gunter et al., 2014), this approach is still necessary if we are to realize ESD in various contexts. This study will also help address the current shortage of research in this area and provide value to countries in the two different country income groups. Notably, the study's findings could be beneficial to policymakers and practitioners in the Secondary Education sector who oversee the improvement of ESD in the school system. Above all, the similarities and differences that will be discovered between the two countries could be used for collaborative learning and global benchmarking between countries in the HICs and the LMICs.

2. Literature review

This study is rooted in the general consensus that education is what drives long-term sustainability, and it is considered a vital component of any policy relating to sustainable development (SD). Based on this idea, this study seeks to investigate how Education for Sustainable Development (ESD) is integrated into the secondary school curricula in Finland and the Philippines, how ESD is reflected in each nation's educational policy, and how each country puts it into practice. Additionally, this study recognizes that the concept of ESD manifests in vastly varied concepts and terminologies in the two countries when considering the differences in history, culture, and political structure. Hence, through conceptual and terminology analysis, this paper also aims to investigate the different terms and concepts of ESD used in each country's educational policies and the main topics surrounding it. It is, therefore, imperative to this study that the historical and theoretical evolution of ESD is provided as groundwork that necessitates a comparative approach. This section also includes discourses on the complexities, main issues, trends, challenges, and opportunities, as well as the realities of ESD in the developing and developed world.

This literature review predominantly explores the historical, theoretical, and methodological work on ESD with an emphasis on the juxtaposition and comparison of ESD in

the LMICs and the HICs. Using a traditional-narrative type literature review, this chapter is organized as follows: a) the first section provides a historical overview of ESD, focusing on its historical roots and how its theories have evolved; b) the second section reiterates the complexity of ESD by comparing issues, critiques, and trends; c) the third section investigates deeper into the challenges and opportunities of ESD at the secondary school level; d) the fourth section examines empirical cases of ESD on educational policies, through a comparative approach, between the LMICs and HICs; lastly, e) the final section explores cases of ESD in the Philippines and Finland.

To investigate this topic, it is important to note what is meant by *Low- and Middle-Income Countries (LMICs)* and *High-Income Countries (HICs)*. In this paper, these terms are not derived from the perspective of a geographical division, but more from the "wider context of globalization" (Hollington et al., 2015). Building from this perspective, this study will use the term *High-Income Countries (HICs)* interchangeably with the *developed world*. The *High-Income Countries (HICs)* include nations such as Australia, Canada, New Zealand, Singapore, the United States, the entirety of Western Europe, Russia, and some parts of the Middle East and Eastern Europe (Country Income Groups (World Bank Classification), 2016). Likewise, the term *Low- and Middle-Income Countries (LMICs)* will be used interchangeably with the *developing world*. These include countries in Latin America, Africa, the Caribbean, Pacific Islands, and the developing countries in Eastern Europe, the Middle East, and East Asia, such as China, Yemen, and the Philippines (The World Bank In China, 2022; Silver, 2022). This study investigates ESD between the Philippines and Finland through the perspective of this polarization, with the former representing the LMICs, and the latter representing the HICs. However, it is crucial to note that, albeit each country represents each country income group, this study does not aim to generalize the state of ESD in the educational policies of all countries in these country income groups.

Rather, this polarized perspective helps us show the gap in the literature in terms of ESD research between the groups. Despite the increased focus on research regarding the integration of ESD into educational policies (Laurie et al., 2016) and the skyrocketing of ESD research in journals with a broad range of backgrounds (Verhelst et al., 2020), it is striking that only a few researchers have taken a comparative approach to investigate ESD in educational policies using an LMICs and HICs perspective, specifically between the Philippines and Finland. Therefore, by examining ESD in the educational policies of these two countries through a comparative approach,

this study aims to gain a better understanding of educational innovation that could be beneficial to educational reforms in the two country income groups.

2.1. Historical and Theoretical Evolution of ESD

To understand the conceptual underpinnings of ESD, this review will first examine and comprehend the historical evolution of the theories. This can help delineate the objectives of ESD and the frameworks for its implementation. More importantly, examining the historical and theoretical evolution of ESD is essential in understanding the root causes of its complexities. As stated briefly at the outset of this paper, this study defines the overarching idea of ESD as the fostering of sustainable development through education (Lu & Zhang, 2013). It incorporates key sustainable development issues into teaching and learning, including climate change, disaster resilience, biodiversity, poverty alleviation, and sustainable consumption (Buckler & Creech, 2014). According to the United Nations Educational, Scientific, and Cultural Organization (UNESCO), ESD equips students with the knowledge, competence, principles, and mindsets they need to become "global and cultivating" inhabitants of sustainable societies (Michelsen & Wells, 2017). These descriptions of ESD highlight its unequivocal link with Sustainable Development (SD).

Understanding ESD includes exploring its inherent connection with and derivation from SD. Arguably the embodiment of political and ethical guidelines for dealing with the planet's ecological and social crisis (Grober, 2007), the concept of SD was globally recognized and inaugurated in 1987 by the World Commission on Environment and Development (WCED). The Brundtland Report, *Our Common Future* (WCED, 1987), defines it as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (p. 41). A more recent definition by the Oxford Martin Commission (2013) describes sustainable development as the channeling of the "opportunities presented in today's world for the benefit of current generations, while also ensuring that we leave the world in a better position for our grandchildren, and the generations that succeed them" (p. 10). Much of the literature on SD agrees that it merely does not focus on economic development but also environmental sustainability and social inclusion (Sachs, 2012).

In relation to ESD's historical roots, Grober (2007) argues that the ideology of reconciling economic development with the conservation of social and environmental equilibrium is not the

brainchild of the modern ecological movement. Instead, its inception originated from the field of forestry tracing back to 1713 (Grober, 2007; Du Pisani, 2006), although scholars Zhang & Wang (2021) argue that it started in 1732, through the publication of *Sylvicultura Oeconomica*, which they found to be "the earliest reference in the field of ESD" (p. 485). This reference, written by Hanns Carl von Carlowitz, originally conceptualized *sustainability* (Grober, 2007) or *nachhaltende Nutzung*, which translates to "sustainable use" in German (Du Pisani, 2006, p. 4). This concept was an impetus for the conservation and cultivation of timber. He argues that there must be "a balance between planting and cutting" so that there will be "continual, steady, and sustained usage" (Grober, 2007, p. 21). Based on this perspective, it is quite clear that the major prerequisite and even parameter for sustainability is equilibrium. Sustainability cannot be achieved without the equilibrium of factors. Simultaneously, this equilibrium acts as a parameter for sustainability as it is an element that is critical when identifying sustainability and when evaluating its performance, status, or condition in certain contexts.

What factors, then, must be balanced? Using the terminologies in the previous statements, *renewal* can equate to production while *cutting* likens to consumption. The analogy this forms can indicate that sustainability requires a balance between factors such as production and consumption. However, this equilibrium of factors in achieving sustainability did not further appear in literature until 1972, when a group of scientists led by Dennis and Donella Meadows of the Massachusetts Institute of Technology wrote the *Limits to Growth*. This book describes a desirable "state of global equilibrium" (Meadows et al., 1972, p. 156), stating that the authors "are seeking for a model output ... that is sustainable without sudden and uncontrolled collapse and capable of meeting the basic material needs of all its people" (p. 158). These publications prove that the concept of sustainability began with this philosophy of equilibrium. Therefore, it is reasonable to argue that the equilibrium of factors is a requirement, a characteristic, and a parameter of sustainability. More importantly, this notion of achieving equilibrium among factors sparked the overarching principle behind sustainability, which is to achieve this balance not through the separation of actors, but through collective responsibility.

The book *Sylva*, first published in 1664 by John Evelyn, emphasizes the idea of responsibility for the future generation. He argues that each generation was "nonsibi soli natus" which means "not born for itself", but "born for posterity". While his book may not have explicitly

been the source of the term sustainability, this thesis argues that it is the driving force upon which Carlowitz based the principle of sustainability. Evelyn (1664) developed the ethics of "responsible and provident society" by stating that "men should perpetually be planting, that so posterity might have Trees fit for their service...which it is impossible they should have, if we thus continue to destroy our Woods, without this providential planting in their stead, and felling what we do cut down with great discretion, and regard to the future" (Grober, 2007, p. 13). This strongly reiterates the analogy of planting as production and destroying our Woods as consumption, and that a balance between these factors implies a "regard to the future", which then, results in a "responsible society". This sense of responsibility was adapted to the modern theoretical concepts of SD, wherein there is a need that stakeholders, such as individuals, governments, companies, and other organizations, must share the responsibility of participating in SD (Filho & Brandli, 2016).

This sharing of responsibility and balance of factors became ubiquitous in the Brundtland Commission publication of *Our Common Future* (1987). This report assesses sustainability in three interconnected "pillars" (Basiago, 1998; Boyer et al., 2016; Gibson, 2006; Moldan et al., 2012; Pope et al., 2004; Schoolman et al., 2012; Waas et al., 2011) encompassing "economic viability", "social equity", and "environmental protection" (Jamrozy, 2007) as "factors or goals" (Purvis et al., 2019). Despite arguments and critiques due to its "lack of semantic clarity" (Purvis et al., 2019) and the lack of disciplined consideration of how it does and does not translate into a more thorough understanding of sustainability (Thompson, 2017), the presentation of these balanced factors still proves the importance and the role that equilibrium plays vis-à-vis achieving sustainability.

The pioneers of sustainability, specifically Carlowitz and Evelyn, have shared values that signaled the beginning of thinking beyond the narrow short-term interests of one's status quo. In a study analyzing the knowledge base and historical roots of ESD research through a bibliometric analysis, Zhang & Wang (2021) claim that this is the period that sparked the enlightenment and exploration stage of ESD. However, this thesis must necessarily note that sustainability is merely initiated from the perspective of forestry. How this "enlightenment" of sustainability supposedly transformed into education then, started from the perspective of pedagogy, philosophy, and ethics (Zhang & Wang, 2021). These are topics not inherently linked to ESD and certainly do not directly point out the issue of sustainability (Lambrechts et al., 2018; Manni et al., 2017), but they shaped

and influenced new approaches, new ways of thinking, and new discourses on the role of education in our society.

This period dubbed the "exploration stage of ESD" (Zhang & Wang, 2021, p. 486) began with Dewey's (2009) new three-center theory. His book on *Democracy and Education* does not directly address sustainability, but Dewey's influence has played an important role in the development of ESD (Lambrechts et al., 2018; Manni et al., 2017). His educational philosophies, which revolve around experiential learning and student-centered and activity-centered instruction (Dewey, 2009), were a stark contrast to the traditional authoritarian teaching practices of the time. Ultimately, this new three-center theory served as the theoretical foundation for ESD pedagogical approaches and was a trailblazer in early environmental and sustainability education (ESE) research (Zhang & Wang, 2021). This theory has evolved into what some scholars claim to be the underlying premise of ESD, which is to empower students with sustainability competencies through a holistic interdisciplinary perspective of content and pluralistic learner-centered democratic teaching strategies (Pauw et al., 2015). Some researchers also utilized Dewey's concept in *Human Nature and Conduct* in 1922 (Dewey, 2020) as a way to explain how Environmental Education (EE) is recognized in the formal school system (Sund, 2015).

Moreover, using the perspective of Dewey's book on *Experience and Nature* in 1929, Kolb (1984) further develops the pedagogical theory of experiential learning by founding Experiential Learning Theory (ELT) (Manni et al., 2017). This is a concept also perpetuated by Sandell & Öhman (2010) who argue that outdoor education can enable students to receive experiential education about nature based on their senses and experiences. Consequently, this can improve how a student thinks about sustainability. This philosophy implies that experiential education through outdoor learning can foster pro-environmental behaviors. Zhang & Wang (2021) reason that "by making students aware of their intrinsic relationship and order with nature, changes in attitudes and behaviors that are conducive to caring for the environment could be promoted" (p. 488), and therefore, an effective tool for realizing ESD.

Essentially, these theoretical concepts nurtured the importance of behaviors and attitudes in achieving ESD, which dovetails with Leopold's *Land Ethic* in 1949 that introduced the concept of "biospheric altruism into environmental concerns" (Zhang & Wang, 2021, p. 486). Other research focusing on mitigating environmental issues through the promotion of behavioral and

attitude change became widespread in the literature. These include raising public awareness of the danger of human activities to the environment (Carson, 1962); challenging the predominance of an anti-ecological social paradigm (Dunlap & Van Liere, 1978); predicting and changing behaviors through the theory of reasoned action (Ajzen & Fishbein, 1980); and developing an instrument to measure the New Ecological Paradigm (NEP) (R. Dunlap et al., 2000). These bodies of literature stimulated the public's attention on the environmental degradation issues, and as a repercussion, it prompted the discussion on ecological protection.

However, this focus on environmental protection, through the advancement of human consciousness, is less rooted in a genuine aim to use education as a tool that nurtures attitudes toward environmental causes. Instead, this shift in focus was backed by "the awakening from environmental deterioration caused by humans' aimless pursuit of economic benefits in the 1960s which prompted the emergence of EE in the 1970s and SD in the 1980s" (Zhang & Wang, 2021, p. 487). In this context, contemporary proponents of SD did not "want to protect nature for its own sake, but for the sake of humankind" (Du Pisani, 2006, p. 5). This ideology shaped the modern debates and critiques on the dominant rationalities plaguing the contemporary global ESD policy.

Notably, this mentality of protecting nature not for the sake of nature, but for the sake of people, blatantly presupposes that humans are separate from nature rather than a part of nature. This, correspondingly, captures the human-centered rationality of ESD (Bylund et al., 2022). This rationality puts the needs of human animals as the central or the most important priority in development, which further perpetuates the notion of a division between human animals and other animals. In their study on the biopolitics of ESD, Bylund et al. (2022) emphasize the increasingly common anthropocentric bias on modern ESD policies. They then question "why non-human living beings are given so little attention in a framework concerned with sustaining life on the planet". Building on this argument, I contend that despite ESD being rooted in the principle of sustainability that aims to bring balance between the production of nature and the consumption of humans through a collective responsibility, the rise in "humans' aimless pursuit of economic benefits in the 1960s" (Zhang & Wang, 2021) added another purpose to ESD. In modern times, the purposes of ESD are not solely based on ecological and social purposes, but more on capitalistic interests and neoliberalism purposes (Griffiths, 2021; Heleta & Bagus, 2021). These purposes are not necessarily an outright problem. However, they do shape the priorities of

countries when implementing ESD, and ultimately, these priorities shape our approaches and processes toward ESD. Nevertheless, it is important to note that, it is not appropriate nor sufficient to only describe the evolution process of ESD through ecological principles (Vare & Scott, 2007) because ESD is an interdisciplinary and multidisciplinary field ingrained in pedagogy, philosophy, psychology, ecology, ethics, and other disciplines (Zhang & Wang, 2021).

While the arguments and narrative mentioned above encapsulate the evolution processes behind *sustainable development* in ESD, these do not necessarily reflect the educational theories and philosophies that formed *education* in ESD. This poses the question: what, then, are the past educational theories and philosophies that shaped ESD as we know it? To answer this question, the following sections investigate the past educational philosophers who concentrated on the innovation of traditional educational concepts. One of these innovations includes Wittgenstein's (2010) educational philosophy. His rule-abiding theory proposes that "the teaching process is a language game, and educational practice should be rooted in the daily life of children and the purpose of abiding by daily rules should be achieved through education, thus contributing to the formation of a new way of life" (Zhang & Wang, 2021, p. 487). This rule-following philosophy on education, however, contradicts Dewey's educational philosophy on a "more democratic" and liberal education. Still, Wittgenstein's influence did widen and deepen discourse on the role of behaviors, rooted in the habitual life of children and their ability to follow rules, as a way to create and reinforce a new way of living (Wittgenstein, 2010). Building on his position, it is worth pondering: if we are to apply this rule-abiding theory to ESD, how, then, can children know which knowledge and competencies are relevant for sustainable development?

This can be answered by another educational innovation founded during this awakening period of ESD. The concept of conscientization theory, proposed in Freire's book on *Pedagogy of the Oppressed*, helped conceptualize ESD by encouraging individuals to "critically examine the world through critical and creative thinking, and thus create a socially inclusive and sustainable environment" (Zhang & Wang, 2021, p. 487). Similarly, this philosophy connects to modern ESD theories, specifically the "two interrelated and complementary approaches to ESD" called *ESD 1* and *ESD 2* (Vare & Scott, 2007). In this theoretical framework, *ESD 1* essentially refers to the promotion of behavioral changes and thinking processes, signifying "Learning *for* sustainable development" (Vare and Scott, 2007, p. 4). On the other hand, *ESD 2* aims to "build the capacity

to think critically about [and beyond] what experts say and to test sustainable development ideas, as well as explore the contradictions inherent in sustainable living, and finally, *ESD 2* signifies Learning *as* sustainable development" (p. 5). Much of Vare & Scott's (2007) framework is subtly inspired by Freire's educational theory. For this reason, the present study argues that fostering critical and creative thinking has been the foundation of a progressive and transformative pedagogical approach that inspired ESD. This approach encourages students' critical evaluation of opposing viewpoints and advocates for learner-centered teaching strategies, including critical thinking, participatory decision-making, value-based learning, and multi-method approaches (Englund, 2006; Firth & Winter, 2007; Rudsberg & Öhman, 2010; Sandell et al., 2005); and social learning (Wals, 2007).

However, the prior mentioned theories are inadequate in addressing the knowledge transfer processes that happen in classroom teaching and learning. More so, these theories failed to consider how individuals gain and build in-depth and more advanced knowledge and cognitive skills, which are imperative in ESD. Although these theories have shaped educational approaches, they failed to establish that learning and teaching have different levels of complexity and specificity. These levels are crucial in teaching and learning especially in ESD, a field that covers a wide range of broad issues (Griffiths, 2021). Thus, this is where the significance of Bloom's Taxonomy (1954) comes into place. Zhang & Wang (2021) claim that although Bloom's Taxonomy does not directly contribute to the issues of sustainability, it nevertheless established "a suitable analysis tool in the field of education" (p. 487). This yet another significant educational innovation established a framework for the hierarchy of educational learning objectives. Considering the multidisciplinary nature and wide range of covered topics in ESD, this taxonomy framework can directly support how teachers teach content related to SD. In theory, it signifies the importance of defining teaching and learning objectives when achieving ESD (Pappas et al., 2013).

The historical and theoretical foundations of ESD show that the concept has been developed from the perspectives of a) ethics, rooted in the field of Forestry, implying the importance of collective responsibility and equilibrium of factors in achieving sustainability; b) experiential learning concerning the environment, demonstrated by Dewey's influence and other similar proponents; c) behavior and attitude change to nurture and promote environmental protection; d) pedagogical philosophies including rule-abiding theory, critical and creative

thinking, and the hierarchy of educational learning objectives, all of which continue to shape modern educational fields, especially on ESD. Since then, the concept of ESD has been preliminarily investigated, and it was until the "formation and development stage" (Zhang & Wang, 2021) that it progressively became a global consensus.

As the concept of ESD gained more international attention, so did the complexities entrenched in the concept begin to arise. Building on the historical and theoretical evolution of ESD, this paper will delineate its intrinsic complexities. The following sections examine the theoretical and methodological complexities of ESD by investigating and comparing key issues, critiques, and trends surrounding this field. This is particularly valuable to this study for three reasons. First, this helps us understand how ESD is currently integrated into contemporary educational policies and systems. Second, this can pave the way to determining how ESD can be better integrated into education policies, especially in secondary school curricula. Lastly, the examination of the complexities of ESD allows us to comprehend and recognize the current realities of ESD in LMICs and the HICs. All of these lay the important groundwork that necessitates a comparative approach.

2.2. The Complexity of ESD

Osborne (2016) writes, "There is no single way to tackle the [ESD] agenda and no way of knowing exactly which skill will help learners thrive in the future". This phrase predominantly encapsulates the common core concept that this chapter aims to examine – ESD is extremely intricate by nature. Across the literature, scholars have recognized that ESD is a complex process, both theoretically and empirically. Still, understanding the complexity of ESD is relevant to this study as it leads to knowing how ESD is currently integrated and can be integrated better into educational policies, especially in the secondary school curricula. This also gives policymakers and practitioners different perspectives on the current realities of ESD in a polarized world: the *developed* and the *developing* world. These are imperatives that necessitate a comparative approach and can guide this study into an in-depth understanding of ESD in conceptual and pedagogical terms, as well as the processes behind its implementation in various contexts. Thereby, this chapter investigates the innate complexity of ESD by comparing its key issues, critiques, debates, and trends.

By examining the key issues, critiques, discourses, and trends of ESD, this chapter argues that the overarching complexities of this field revolve around the three Ps of ESD: *principles of*

ESD, *processes towards ESD*, and *priorities for ESD*; as well as their interconnectedness and interdependencies. The *principles of ESD* refer to the theoretical or the *non-corporeal aspects* of this field, whereas the *processes towards ESD* imply the *methodological or procedural aspects*. While most contemporary studies on ESD focus on either of these two (Aguilar, 2018), this paper argues that to truly realize ESD, there is one crucial aspect that bridges the two: *the priorities for ESD*. These three Ps complete the trifecta of ESD's complexity and help visualize how the complexities of this field occur theoretically and empirically. However, albeit this visualization delineates the complexities of ESD, it still lacks an approach to investigate the intricacies of factors involved in these three Ps. Therefore, this paper employs the top-down and bottom-up approaches (Böhringer & Rutherford, 2008) to investigate the interconnectedness and interdependencies of the multidisciplinary factors involved in this trifecta.

Using the notion of the top-down approach as analogous to the theoretical complexities of the non-corporeal aspects of ESD, the *principles of ESD* represent the ideologies, theories, and other *intangible* factors that influence the *tangible* aspects of ESD. Most research in this field acknowledges the important role that education plays in achieving long-term sustainability, however, many scholars still struggle to agree on quantifiable ways on how to achieve ESD (Kopnina & Meijers, 2014). Even more so, the immeasurable, non-corporeal aspects of this field remain equivocally contested. In their study findings, Kopnina & Meijers (2014) have stated that there remains "a broad and inconclusive debate on the aims of ESD" (p. 188) and that the very "foundations and objectives of ESD must be critically examined" (p. 198). Using this perspective, I argue that ESD's foundational principles including its purposes and essence constitute the noncorporeal complexities of this field.

This section emphasizes some scholastic contributions to the theories and principles that currently shape and/or must shape the processes toward ESD. Significantly, one dominant theme among these literary contributions tackles the purposes of ESD. As argued by Kopnina & Meijers (2014), the complexity of ESD stems primarily from the fact that its conceptual foundational objectives remain vague. Perhaps this is rooted in the very complex nature of Sustainable Development (SD), which some scholars dubbed as "our greatest challenge", while for some, it's "a subversive litany" (Vare & Scott, 2007). Nonetheless, ESD, like any other educational concept, has its purposes. In a study on the exploration of the theoretical and conceptual challenges of ESD,

Kopnina & Meijers (2014) tackles what the "ends" of ESD mean using Jickling's (2009) argument that contradicts "the post-structuralism assertions that education has no meaning and no ends". This implies that education, including ESD, will and always will have a purpose. As McKeown (2002) claims "All education serves a purpose, otherwise, society would not invest in it" (p. 7). Building on McKeown's and Jickling's philosophy that education has a purpose, the present paper ponders: what then is the purpose of ESD?

Some scholars criticize ESD for its embodiment of indoctrination. For instance, Jickling (1992) argues that the "*for*" in ESD indicates "indoctrination", claiming that "education must enable people to think for themselves. Hence, education *for* sustainable development … or education *for* anything else is inconsistent with this criterion" (p. 8). Contrary to this perception, McKeown (2002) reasons that the "*for*" in ESD indicates a purpose. Although she acknowledges that "a few will abuse or distort it and turn it into indoctrination" (p. 8); still, treating ESD as indoctrination is antithetical to its nature, which rather "calls for providing people with knowledge and skills for lifelong learning to assist them in finding new solutions to their environmental, economic, and social issues" (p. 7). Moreover, international organizations that promote ESD, such as UNESCO, highlighted the purpose of ESD that goes beyond the "access or instilling of basic competencies, such as literacy and numeracy" (Buckler & Creech, 2014, p. 22). Rather, they defined the purpose of quality ESD as the encompassing of "relevance, purpose, methods, results, and content of education as well as assisting learners to acquire lifelong values that underpin sustainability" (p. 22).

It is established in the literature that one of the complexities of ESD as a concept is rooted in the fact that the conceptual perceptions and terminologies of this field vastly vary, as ESD manifests itself in different forms around the globe (McKeown, 2002). Since some foci of ESD include climate change, disaster resilience, biodiversity, poverty alleviation, and sustainable consumption (Buckler & Creech, 2014), these multidisciplinary themes perpetuate the confusion and the cumbersomeness of ESD. To add further complication, as emphasized by Hanley (2005), ESD is a concept that must be "adaptable to local contexts" to foster community participation in its implementation and must address cultural specificity (Kopnina & Meijers, 2014). On the other hand, it must also abide by the contemporary ways of thinking that shaped ESD globally, which is that it must be holistic yet tangible, multidimensional yet direct (UNESCO, 2004), and pluralistic

yet subjective (Pauw et al., 2015). However, Hanley (2005) argues that these very ways of thinking are what make ESD too cumbersome to implement and are what risks it being vague, intangible, and indirect. These contradictions in the scholastic contributions to ESD reinforce the role that global concepts and local contexts play in the innate essence of ESD. The implication of these contradictions seems to signify the cruciality of the interpenetration of globalization and localization in achieving ESD, how they can operate reciprocally, and invigorate each other. Tackling global issues while taking local epistemologies and methods into consideration, must govern not only the principles of ESD but also the systemic processes toward ESD and the priorities that we make for ESD. Hence, this paper argues that the overarching foundational principle of ESD is the glocalization of education.

The term *Glocal*, a portmanteau of *Global* and *Local*, is defined by Oxford University Press (n.d.) as "reflecting or characterized by both local and global considerations" (para. 1) and implies the adage "think global, act local". This slogan has been widely used as a catchphrase across various disciplines, although it has been originally associated with Scottish town planner and social activist Patrick Geddes (Barash & Webel, 2002). The idea of *glocalization* in education first appeared in literature through Grauer's (1989) dissertation on Educational Leadership, wherein he utilized the notion of "thinking globally and acting locally" to support his study on the development of worldwide resources in the local community (Grauer, 1989). However, it was Reed (2006) who first coined the term *glocalizing education* where he emphasized: "focusing in on the local and focusing out on the global" (p. 16). In his study, he emphasized the need to take into consideration unique cultural settings by supporting local and indigenous knowledge and making linkages between the local and the global. Glocalizing education, he believes, will enable a continuous evaluation of the viewpoints and presumptions we have acquired in the process of comprehending and resolving global issues, especially about the "intertwinement of indigenous and non-indigenous knowledge and pedagogies" (p. 23). The glocalization of education as the foundational principle of ESD not only takes into consideration local epistemologies, and crafts locally contextualized processes toward ESD, but it also counteracts the dilemmas and complexities of ESD in terms of its principles.

In Reed's (2006) study on Glocalizing Education, he examined the *ahupua'a* curriculum, a native Hawaiian curriculum based on traditional ecological knowledge (TEK). He argues that

this curriculum not only imparts the knowledge, abilities, and character traits that are crucial for developing global citizenship but is also fundamental for being a Hawaiian and having a deep understanding of the locals. He captured the essence and the impact of glocalizing education in his words, "There is great potential for developing global competencies through this [ahupua'a] curriculum" (p. 22). Reed's (2006) findings show that glocalizing can enable ESD to embrace its multidisciplinary themes and still be adaptable to local contexts, holistic yet tangible, multidimensional yet direct, and pluralistic yet subjective.

Moreover, the concept of glocalizing education also supports what many scholars agree upon in terms of how we must view ESD. Most scholars concur that ESD concerns the core of teaching and learning that must not merely be viewed as an "add-on" (Buckler & Creech, 2014b; Pearson & Degotardi, 2009) to an already "overcrowded curriculum" (Sterling, 2000) or educational practices. Rather, ESD must be viewed as a flexible steppingstone to a different point of view of curriculum, pedagogy, organizational change, legislation, and ethos that entails a complete transformation of the educational system (Corcoran & Wals, 2006). This necessitates a reorientation of education systems and structures, as well as improved basic education, public understanding and awareness, and training at all levels of education and in a variety of settings, whether formal, non-formal, or informal (Buckler & Creech, 2014b). Additionally, this presupposes a reframing of teaching and learning knowledge, skills, perspectives, and values (McKeown, 2002). These prior mentioned principles of ESD encapsulate the overall idea of glocalization of education. Merely adding or integrating ESD into curricula is not adequate. To truly utilize education as a tool for sustainable development, ESD must be used as a means of education, and not just an "add-on" to education; and to quote Reed (2006), "glocalized education may be one approach to achieving this end". In this case, ESD, through glocalization, acts as a tool and a frame of mind that necessitates a complete transformation of the educational system, coupled with a radical change in our ways of thinking. Using this premise brings new challenges to the complexity of ESD.

The second P in the trifecta of ESD's complexity stands for the *procedural aspects* of ESD or the methodological complexities, which can be examined in two approaches: bottom-up and top-down. The importance of examining the complexity of processes toward ESD using these two approaches allows this review to analyze the substantial interdependencies intricately woven

among various systems, institutions, and actors present within the levels of society, as well as their influences on the implementation of ESD. However, it is critical to recognize that each of these systems and actors exists within a structured setting that is defined by its own set of rules and resources. It is not sufficient to draw on the individual (micro-level) or structural (macro-level) perspectives to comprehend the complex reality of social issues affecting education (Boeren, 2019). Thus, a combined approach is advised (Boeren, 2019) as it can be extremely beneficial in understanding the current integration of ESD in the normative educational framework and how it can be better integrated into our educational systems.

Using the Micro, Meso, and Macro (MMM) framework (Dopfer et al., 2004), this chapter argues that the procedural complexity of ESD can be classified into three levels of processes towards ESD. All of which have an impact on the implementation of ESD. Starting from the bottom, the first process refers to *individual processes* or the micro-level which indicates the actions and intentions of individuals who are the "carrier of rules and the systems they organize" (Dopfer et al., 2004, p. 263). This level includes thinking processes that govern individuals. For example, in the case of ESD, Arbuthnott (2009) emphasized that ESD must go beyond behavioral and attitude change. In her research findings, she concludes that ESD programs should pay special attention to the contextual shifts and the creation of personal management plans as mediating factors in the attitude-behavior relationship (Arbuthnott, 2009). This theory of going beyond behavioral and attitude change is also implicitly supported by Hanley (2005) who highlighted the utilization of ecosemiotic in the way we perceive ESD. In his study, he argues that using an ecosemiotic theory of knowledge to ESD demands a method of determining the value of particular interpretations of entities (Hanley, 2005). This, accordingly, changes our habitual interpretations (Hanley, 2005), which, I argue, also consequently changes our attitudes and behaviors. Nevertheless, both Arbuthnott's (2009) and Hanley's (2005) theories about the implementation of ESD support this chapter's argument that there are individual processes toward ESD at the Micro level of society.

The second process refers to both the *organizational processes* that take place at the Meso level or the "parts of the society such as specific local communities and organizations" (Javaid et al., 2019, p. 8). Since scholarly interest in ESD policy has been increasing (Bylund et al., 2022), some scholastic foci include empirical approaches to how to achieve ESD. Some obvious trends

in this topic include building an ESD-effective school organization that focuses on eight traits: democratic decision-making, shared vision, adaptability, pluralistic communication, collective efficacy, school resources, sustainable leadership, and supportive relations (Verhelst et al., 2020). However, when it comes to organizational processes, one must not overlook the implications of the prerequisites of ESD in teaching (Villanen, 2014). According to Villanen (2014), for ESD to be successfully taught by teachers, the connection between social and environmental issues "needs to be relevant to the local community and individuals should have the chance to discuss contentious issues" (p.179). Consequently, both ESD-effective school organization and teaching are important factors that contribute to the processes that occur at the Macro level.

Lastly, the third process refers to the *institutional processes* that occur at the Macro level of society. This includes political, economic, and social factors that impact both local communities and individuals but does not cover, for example, social interactions that occur on micro and meso levels (Javaid et al., 2019). Such institutional processes signify the importance of reshaping our institutions and transforming our policies toward ESD. Recent studies emphasize empirical ways of looking at ESD, including the whole-school transformation theory which emphasizes local school organizations as the strong foundations for the implementation of transformative ESD (Gericke & Torbjörnsson, 2022; Mathie, 2019; Mogren, 2019). However, going beyond the school level, Bylund et al. (2022) highlight the biopolitics and governmentality of ESD (Bylund et al., 2022); wherein they reiterate the fundamental role that governance and corporate structures play in addressing unequal relations and unsustainable practices that occur in society. They argue that broad changes to business structures and governance must be considered to maximize the benefits while acknowledging the limitations, of educational interventions toward a more sustainable society (Bylund et al., 2022). These theories and arguments signify the presence of institutional processes that influence the realization of ESD. Analyzing the procedural complexity of ESD through this MMM framework can explain how transformation occurs within these levels, and how ESD, as a complex system, takes place in different local settings and requires different perspectives, approaches, and processes to advance its implementation.

This three-level paradigm of the processes toward ESD can also be compared to what Cheng (2002) calls the *triplization* of education. His theory on this "new paradigm of education … involves a tri-part education model that includes globalization, localization, and

individualization" (Reed, 2007, p. 18). Cheng's (2002) triplization theory is valuable to this analysis because it emphasizes the value of local knowledge in education (Reed, 2007), especially in ESD. It also highlights the linkages and dynamics that occur in a tri-part education model, and how these three components can interactively illuminate the complexity of the processes toward the realization of ESD. Therefore, equating the MMM framework to the triplization model is necessary to re-conceptualize the processes that affect ESD, and this can also enable the development of new pedagogical strategies that can lead to educational reforms. However, despite most contemporary studies focusing on the study of the purposes and processes of ESD (Aguilar, 2018), this section contends that to truly realize ESD, there is one crucial aspect that bridges the two: the *priorities for ESD*.

Most previous studies related to Sustainable Development agree on the intrinsic complexity that entails compromises, synergies, and trade-offs. For instance, there are potential trade-offs between priority for either environmental conservation or human well-being which commonly impede the implementation of methods to attain the Sustainable Development Goals (SDGs) (Yang et. al., 2020). Similar to the field of ESD, there has been a common theme of argument on the priorities of ESD in its current landscape. According to Bylund et al. (2022), "previous research on ESD policy has pointed to its tendencies to have an anthropocentric bias (Kopnina, 2012, 2014, 2016), and in terms of research on ESD, more broadly posthuman and new materialist critiques of anthropocentrism have been increasingly common" (p. 45). This, I argue, reveals one of the main priority themes of the current educational landscape for ESD, which is centered on humanocentrism or the human-centered rationality of ESD.

Additionally, aside from the main priority for ESD currently focused on anthropocentrism and androcentrism, Bylund et al. (2022) also criticize the current priority of ESD policies as more focused on gender awareness studies than on income inequality. These trends in arguments from recent studies underline the complexity of the current priorities of policies for ESD and signify its implication as one of the reasons for the complexities of this field. Overall, building on McKeown's philosophy that ESD signifies a purpose, this review argues that these purposes of ESD are one of what constitutes the complexities of this field. Moreover, achieving these purposes entails reshaping our priorities in terms of our theoretical and empirical frameworks, as well as processes that take place at different levels of society. Hence, the central argument of this section

concludes that the trifecta of the complexities of ESD constitutes the three p's: *purposes of ESD*, *processes towards ESD*, and *priorities for ESD*.

2.3. Challenges and Opportunities of ESD in Secondary Schools

ESD is vital across the educational spectrum, as reiterated continuously by the previous sections of this review. The previous sections have provided some background to ESD; in particular, the historical and theoretical evolution of this field and the complexities surrounding it. This section, on the other hand, will review recent international literature on ESD at the secondary education level to explore the challenges faced and opportunities in integrating it effectively across the secondary education curriculum. While the previous sections focused on the theoretical aspects of ESD, this section on the other hand focuses on the empirical applications of ESD, specifically in secondary schools.

In this study, secondary school or also known as *high school* refers to the two levels of secondary education, namely: a) Lower Secondary Education or Junior High school, including Grades 7 to 10; and b) Upper Secondary Education or Senior High school, including Grades 11 to 12. Albeit this research acknowledges the importance of ESD across all educational stages, there seems to be less work and fewer reports in the literature on case studies of formal school-based education that are geared toward goals of sustainability in the secondary education sectors (Taylor et al., 2019). In a study about Education for sustainability (EfS) in the Secondary Education sector, Taylor et al. (2019) concluded that implementing EfS and integrating it into the curriculum at the secondary level is generally significantly more difficult than attempting this at the primary level. Therefore, this study focuses specifically on the secondary school sector and aims to explore and examine various case studies of ESD practices in this sector.

Despite ESD being implemented in education across the globe, large-scale empirical research on the current challenges and opportunities of ESD specifically in secondary education remains scarce and lacking in the literature. In their study on Education for Sustainability, however, Taylor et al. (2019) briefly zoomed in on the barriers to integrating EfS in secondary education. While not the core focus of the study, they argue that there are four categorical barriers to implementing EfS in secondary education; namely: conceptual, educational, logistical, and attitudinal (Taylor et al., 2019). According to this argument, the conceptual barriers refer to the lack of theoretical consensus and misconceptions about the concept of EfS (Ham & Sewing, 1988).

Meanwhile, educational barriers refer to teachers' competence and/or commitment to teaching EfS; while logistical barriers indicate the lack of resources, funding, and teachers' lack of preparation time (Taylor et al., 2019). Lastly, attitudinal barriers imply teachers' attitudes about the environment and ESD.

Studies on the challenges of ESD show similarities to these barriers irrespective of the differences in terminologies. Indeed, secondary education teachers have different perspectives and interpretations of ESD; predominantly due to their different fields of expertise (Sund & Gericke, 2020). More importantly, these diverse perceptions of ESD consequently influence their teaching practices (Anyolo, 2015), potentially leading to educational barriers such as teachers' feelings of competence. Furthermore, across the literature on ESD, there is also an obvious emphasis on the lack of funding, proper resources, and training for educational practitioners in teaching ESD in schools (Anyolo, 2015; Benovot, 2014; Dyment & Hill, 2015; Evans et al., 2012). This, of course, reciprocally affects teachers' level of commitment to teaching ESD. In a study on implementing ESD in three secondary schools in Namibia, Anyolo (2015) argues that the lack of training, inadequate time, and inappropriate teaching and learning resources prevented teachers from using participatory methods which could catalyze self-learning and enhance students' participation. As Hungerford (2009) claims, "We are asking teachers to do things they are not trained to do, do not have time to do, or have never done" (p. 2).

Despite these challenges, there are also crucial opportunities when it comes to the implementation of ESD in secondary schools. These opportunities include collaborative cross-curricular teaching which utilizes the different perspectives of teachers in teaching ESD and has greater potential in providing a holistic ESD (Sund & Gericke, 2020). Moreover, recent empirical studies on ESD also emphasized the importance of participatory active teaching and learning methods when it comes to implementing ESD in secondary schools (Anyolo, 2015; Benavot, 2014). Accordingly, this teaching method ensures real-life experiences which, in turn, form values and skills crucial to the objectives of ESD (Anyolo, 2015). According to Robottom and Hart (1993), this method enables students to take ownership of their own learning as they gain knowledge through practical experiences. In this case, reflection and the growth of critical awareness are made possible by these experiences. Finally, Anyolo (2015) also highlighted the relevance of ESD as a skill-based education, emphasizing the development of skills such as critical

thinking, problem-solving, and decision-making. Albeit these opportunities solely focus on pedagogy, which is a small yet important fraction in the realization of ESD; it, nevertheless, signifies various ways and strategies in implementing ESD in secondary education schools and ensuring its effectiveness.

2.4. ESD on the Educational Policies of LMICs & HICs.

This section discusses how ESD is integrated into the educational policies of two income groups, Low- and Middle-Income Countries (LMICs) and High-Income Countries (HICs). Across the literature, there is a consensus that ESD has been increasingly becoming a part of policies that address key challenges in sustainable development (Benavot, 2014; UNESCO, 2014). Since the United Nations Decade of Education for Sustainable Development (DESD) in 2005, most UN Member States developed numerous policy initiatives, strategies, plans, and/or frameworks in response to it (UNESCO, 2009a). However, these policies and frameworks significantly vary due to the salience of different sustainability challenges in each region (UNESCO, 2014). The African region, for example, underlined the significance of ensuring the alignment of ESD into their African cultures, knowledge systems, languages, and ways of life. There is also a solid conviction in the important role of the indigenous communities in integrating ESD into policies, specifically in regions with rich indigenous communities (Benavot, 2014). While in the Latin America region, countries like Cuba have made significant progress in raising greater awareness and integrating environmental education (EE) and ESD in policy and practice (UNESCO, 2013, 2014). Moreover, ESD policies in Latin America and the Caribbean (LAC) region are aimed at counteracting environmental degradation while building just and sustainable communities through inclusive citizen participation (UNESCO, 2014). This major focus on EE and its connection with ESD has also been similarly shared by countries in Asia and the Pacific countries. Meanwhile, the alignment of ESD with gender equality issues has been of major emphasis in the Arab region (UNESCO, 2013, 2014).

On the other hand, High-Income Countries (HICs), specifically in Europe and North America, were found to have been more apt in establishing coordination mechanisms than most countries in all other regions (Benavot, 2014). According to UNESCO's report on DESD (2014), the majority of countries in Europe and North America region have "achieved or are close to finalizing and setting in place policy, regulatory and operational frameworks that support ESD"

(p. 47). Correspondingly, there were also serious attempts in integrating ESD into the content and process of formal education, wherein there is an emphasis on the importance of "educator competencies" as steppingstones for reorienting education systems (UNESCO, 2014).

In terms of National or Subnational policies, there are more coordinated and organized efforts in setting ESD policies and frameworks at the national level, both in the LMICs and the HICs. By 2014, 50% of the UNESCO Member States have included ESD in relevant policy, 29% have formulated national legislation to ESD, 66% developed an ESD strategy or plan that is implemented with close cooperation among government bodies and relevant stakeholders, 50% have established national ESD/DESD coordinating body, while 80% have appointed an ESD focal point or organization (UNESCO, 2014). One of the key trend mechanisms for integrating ESD into national policies includes embedding ESD into SD policies. Mauritius, for example, integrated ESD into all levels of education after the Maurice Ile Durable (MID) policy was introduced in 2008. The objective of the MID policy was to "reorient the education system towards sustainability, catalyze capacity at all levels and increase awareness of key issues" (UNESCO, 2014, p. 50). This resulted in the formulation of a more integrated approach through interdepartmental cooperation among government agencies. More importantly, this highlights "interdepartmental coordination" as a key in the successful implementation of ESD, as seen in the cases of Belgium and Uganda.

Another mechanism in national policies that drive the adoption of ESD includes embedding it into education policies, as seen in Indonesia, Australia, Togo, China, Kenya, and Finland (UNESCO, 2014). Specifically, Finland reformed the national core curricula for preschool and basic education to support and promote sustainable development and well-being. On the other hand, countries such as Scotland and provinces such as Manitoba in Canada, have capitalized on high-level political leadership and coordination to ensure that ESD objectives are implemented (UNESCO, 2014). This signifies the importance of successful leadership and political will in sustaining efforts toward ESD. Lastly, UNESCO Member States have demonstrated the utilization of policy instruments to advance ESD. From approaches like legal frameworks to soft policy approaches, countries such as Brazil, Cambodia, India, Japan, Kazakhstan, Scotland, and Sweden have chosen to institute a legal framework for ESD. This led to the development of types of legislation, curriculum directives, and standards related to ESD. On the contrary, countries without

formal ESD legislation have adopted soft policy approaches to stimulating commitment, encouraging involvement, and providing guidelines for changes in the education system toward ESD. This includes countries such as China, Kenya, Jordan, Rwanda, South Africa, Chile, and Indonesia. The implications of these actions toward ESD have shown an increase in the inclusion of ESD into the sustainable development plans of each country. More importantly, these various diverse ESD policies and frameworks have shown the importance of being globally local when it comes to ESD implementation. Strategies for ESD must be tailored and personalized in accordance with the challenges, needs, and strengths of a nation-state. As UNESCO (2014) puts it, "When it comes to models of ESD, one size will not, and should not, fit all" (p. 57).

2.5. ESD in the Philippines

Conditions for the development of Sustainable Development, and eventually ESD, in the Philippines, were predominantly influenced by the nation's pursuit of protecting, conserving, and managing its environmental and natural resources. Considering the environmental challenges that the Philippines regularly experiences such as earthquakes, typhoons, flooding, and landslides (Boquet, 2017), most of the previous and current programs and initiatives aimed at implementing ESD in the country are closely tied, if not focused, on Environmental Education (EE). This is also mostly because the Philippine government has been working toward sustainable development long before the Decade of Education for Sustainable Development (DESD) was established (Valencia, 2018). In a report written for UNESCO, Tuazon and Reyes (2011) provided extensive information about the proliferation of ESD in the country.

The emergence of ESD in the Philippines is inherently connected with the nation's pursuit of Sustainable Development (SD) (Babia et al., 2021; Valencia, 2018). Accordingly, several organizations started pushing for the institutionalization of SD in the country in the 1950s (Babia et al., 2021; Valencia, 2018; UNESCO, 2011). This resulted in the establishment and reorganization of some government agencies tasked to oversee the management of the implementation of SD projects and plans. It is important to note that most of the government's efforts to pursue SD nationwide were initially delegated to the Department of Environment and Natural Resources (DENR), whose mandate was to "become the driving force in the pursuit of sustainable development" in the country (Valencia, 2018, p. 53). As an organization, DENR instigated the development of the Philippine Strategy for Sustainable Development (PSSD) and

the creation of the National Strategy on Environmental Education by the Department's Environmental Management Bureau (EMB) (Valencia, 2018). To further promote environmental education, the government created the National Environmental Action Plan Framework (NEEAP) for 1992-2002.

The institutionalization of Sustainable Development in the country was further perpetuated after Agenda 21 was globally acknowledged in 1992. This led to the creation of the inter-agency Philippine Council for Sustainable Development (PCSD) and the adoption of the nation's blueprint for sustainable development called the Philippine Agenda 21 (PA21) in 1996, which eventually evolved into the Enhanced Philippine Agenda 21 (EPA 21) in 2009 (Valencia, 2018). The country's pursuit of PA21 resulted in the integration of ESD in Philippine Schools. In 2008, the Philippine government legislated the National Environmental Awareness and Education Act, which "directs all relevant organizations to incorporate environmental education into all levels of public and private school curricula, including barangay nursery, preschool, non-formal, technical vocational, professional, indigenous learning, and out-of-school youth (OSY) programs" (Valencia, 2018, p. 53). To further promote this law at the tertiary education level, the National Service Training Program (NSTP), a "civic welfare training service component necessary for all bachelor's degree and vocational courses with at least two-year curricula" (p. 53), has been utilized as a vehicle for ESD in the academic programs in colleges and universities (Valencia, 2018).

One common theme in the history of ESD in the Philippines is the prime emphasis on Climate Change Education (CCE) and Disaster Risk Reduction (DRR). When the Climate Change Act of 2009 was legislated to help pursue ESD in the country, the law led to the establishment of the Climate Change Commission (CCC) (Valencia, 2018). This is the decision-making body responsible for mainstreaming the government's climate change policies, programs, and action plans. More significantly, it directs the Department of Education (DepEd) to incorporate climate change into the curricula for basic education. Soon after, the Philippine Disaster Risk Reduction and Management Act of 2010 was implemented by the government "to minimize and reduce disaster-related losses and to build up and improve the resilience of the nation's vulnerable communities" (Valencia, 2018, p. 54). More importantly so, the law also requires the integration of DRR education into secondary and tertiary school curricula. Since then, these efforts have been the responsibility of education agencies including the Department of Education (DepEd), the

Commission on Higher Education (CHED), the Technical Education and Skills Development Authority (TESDA), and other pertinent organizations.

Another common theme in the history of ESD in the country involves the tougher challenge of integrating it into the Philippines' higher education institutions (HEIs). Aside from the utilization of NSTP to promote ESD at the tertiary education level, the country's Commission on Higher Education's (CHED) Strategic Plan 2011-2016 was created to reorganize efforts and resources toward ESD implementation and integration in the HEIs (Valencia, 2018). Overall, this demonstrates that numerous legislations have significantly provided the legal foundation and enhanced the implementation of different ESD policies among Philippine educational institutions. This is demonstrated by the reorientation of the curricula, especially at the basic education level. Albeit these changes indicate a strengthening of an adaptable approach to ESD across the country, they fall far short of the systematic strategy required to move HEIs quickly and effectively toward sustainability in this nation.

2.6. ESD in Finland

In Finland, the government sees education as a vital tool for advancing sustainable development across Finnish society and ultimately achieving a sustainable country. Due to the high quality of Finnish Schools, their teachers, and the high esteem for Finnish teacher education and educational research in the country (Åhlberg et al., 2015), it is no wonder that Finland is aiming to become a sustainable development leader (SYKE, 2016). At present, ESD in Finland is legislated across all levels of education as enshrined in the country's National Core Curriculum 2014 (Lähdemäki, 2019). In retrospect, however, the genesis of ESD in Finland can be traced back to the 1990s when, similarly to other countries, it evolved from the country's pursuit of sustainability.

According to Lindroos and Loukola (2006), Finland has committed to the UN Decade of Education for Sustainable Development (UN-DESD) 2005-2014. The country is also still devoted to the UNESCO and United Nations Economic Commission for Europe (UNECE)'s documents regarding the European implementation of DESD. After the creation of the Rio Declaration on the principles of sustainable development and Agenda 21, the countries in the Baltic Sea region developed and promoted their own Baltic 21, and eventually the Baltic 21E program, which aimed to amplify the Education sector (of all Baltic States) as a crucial sector for sustainable development in the region (Loukola et al., 2002). Based on this program, Finland drew up a launch plan for a

national Baltic 21E program in 2002 and developed its own national strategy for the UN-DESD in 2006 which contains policy definitions and covers the entirety of the country's educational system (Ministry of Education, 2006). The Finnish national strategies concerning ESD also emphasize increased cooperation between administrative fields (Lindroos and Loukola, 2006). This entails the cooperation between two ministries, the Ministry of Education and the Ministry of Foreign Affairs (MoFA), as the key actors of ESD in Finland since 1995. More specifically, MoFA financially supports the work done by NGOs in Global Education (Loukola et al., 2002).

The work towards the 2014 Finnish curriculum started with the understanding that the impact of globalization and the need for a sustainable future were reshaping the fundamentals of schooling (Lähdemäki, 2019). For these reasons, the national policies of Finland regarding ESD prioritize supporting schools in sustainable development learning processes (Lindroos and Loukola, 2006). These policies also highlight the importance of an ecosocial approach to education that highlights systems thinking and value-based education (Åhlberg et al., 2015). In this case, Åhlberg et al. (2015) define the eco-social approach to education as learning that leads to understanding the equilibrium that exists between one's freedom and responsibility as a human being. However, this approach must also be coupled with systems thinking which, accordingly, is key to recognizing and understanding the simplexity of our dynamic world. Correspondingly, this eco-social approach to education also entails learning that acknowledges the various interests and values that we have in this world and understanding that they can be prioritized in such a way that every individual's "chances for a good life do not decrease, but rather increase" irrespective of our "hierarchy of ecological, social, and economic interests" (p. 231). This approach to education shows the importance of pedagogical theories and practices in relation to the realization of ESD. Indeed, ESD is expected to flourish when teachers use innovative pedagogical practices (UNESCO, 2012a). Hence, schools in Finland were encouraged to practice pedagogical approaches based on discovery learning, participatory or collaborative learning or group learning, and problem-based learning (UNESCO 2012a).

Across the literature, most research topics about sustainable development in Finland focus broadly on the evolution of ESD in the country and SD in general. In recent years, however, various dimensions and issues under sustainability have emerged in research topics that involve the country. This includes global citizenship education, environmental education, and studies about

the close link between sustainability, well-being, and education. Although there are few studies on ESD in Finland, the Finnish education system is still seen and used as a model in comparative studies on sustainability across the globe. For instance, in a comparative study on Global Citizenship Education (GCE) across 10 Countries in Europe, Global Schools (2016) used the Finnish national curriculum as a paradigm of GCE. This study concludes that Finland is the only European country where GCE is embedded in the curriculum, as it is explicitly cited in the Finnish National Core Curriculum for Basic Education (Global Schools, 2016). The country also brings "their model young energy and model of active citizenship into schools" (Forghani-Arani et al, 2008, p. 79). These studies highlight the importance of the key roles that active and global citizenship play in achieving ESD as a country. More importantly, these also provide concrete examples of legislation related to sustainability in the country.

Another common theme across literature involving ESD in Finland is the existence of monitoring and evaluation initiatives in the country (Benavot, 2014). In 1999, the National Board of Education evaluated the integration of Sustainable Development in schools (Loukola et al., 2002). It discovered that, among the 500 educational institutions that participated in the evaluation survey, 72% of the vocational institutions, and 66 % of the institutions of general education, have included the promotion of sustainable development in their curricula. Meanwhile, in terms of teaching, the principles of sustainable development are predominantly embedded into other instruction across all educational spectrums. Correspondingly to the Philippines, there is a strong emphasis on Environment Education (EE) during school hours, especially in school subjects, and after school activities, such as special theme days. Currently, the institutionalization of ESD in Finland is shaped by the national core curriculum, providing support and impetus for educational institutions to revitalize or improve their pedagogies and practices toward ESD. Despite the differences in commitment and implementation of ESD in Finnish schools and even within cities (Lähdemäki, 2019), studies across the literature reveal that the reorientation of educational policies and integration of ESD into curricula has unequivocally catalyzed change.

2.7. Conclusion

The proliferation of ESD and its integration into educational curricula have unequivocally challenged conventions and catalyzed change toward the global pursuit of a sustainable future through education. The existing body of literature covers a wide range of topics about the various

aspects of ESD including its evolution, its inherent link with Sustainable Development, and the complex theories surrounding it. Indeed, the principles of sustainability have fundamentally shaped the ambition behind ESD and its progressive content. These principles of sustainability have also provided support and momentum in shaping contemporary educational theories and practices that value ethics concerning collective responsibility, experiential learning, and several pedagogical philosophies. Nevertheless, studies claim that ESD transcends beyond the concept of Environmental Education (EE), requires more than just attitude change, and must not be treated merely as an 'add-on' to educational policies. The implications of these findings entail taking into consideration the complexities of ESD in terms of its principles and processes. However, what is more importantly needed is the willingness and the political and pedagogical will to reshape our priorities in terms of our theoretical and empirical frameworks toward ESD. Indeed, to truly utilize education as a tool for sustainable development requires a complete transformation of the educational system.

Unfortunately, studies on the empirical cases of ESD have shown that countries and educational institutions across the globe have only come as far as integrating ESD into policies. Despite the scarcity of research on ESD at the secondary education level, there seem to be similar barriers that have emerged across the literature when it comes to implementing ESD at this education level. These barriers include the lack of theoretical consensus about the concept of ESD, the lack of teachers' commitment to teaching it and their attitudes toward it, as well as the lack of resources and funding. Notwithstanding these hindrances, however, several vital opportunities allow for the effective implementation of ESD as demonstrated by countries all over the globe. Findings show that policies and frameworks toward ESD significantly vary based on the different sustainability challenges that countries face. Between the Philippines and Finland, for instance, the former puts heavy emphasis on climate change education and environmental education as embedded in its educational policies. While the latter, though it also focuses on environmental education and other equally essential issues under ESD, stresses the importance of sustainability as a tool for achieving good well-being. The implications of these studies indicate that there is a need for diversification of strategies when integrating ESD into educational policies and implementing it in our societal systems.

3. Methods

This research employs a comparative approach to investigate the research aim, which is to investigate how ESD is implemented in Finland and the Philippines based on educators' perspectives. Given the above, this chapter provides an outline of the overall research design choices used in this study and the justification of these choices. This includes information about the research method and approach, both of which are necessary determinants of the data collection method and data analysis method utilized in this study. This chapter also discusses the chosen sampling strategy and the context and participants of the study, such as the criteria for inclusion, who the participants were, and how they were sampled. This chapter also discusses the data collection method, the instrument utilized for data collection, and the methods employed to carry out this research. Finally, the chapter's final section examines the methodologies utilized to analyze the data as well as the ethical considerations that were followed throughout the process.

3.1. Research Design

3.1.1. Research Method and Approach

In 2016, Global Schools conducted a Comparative Study on Education Policies that foster Global Citizenship Education (GCE) across 10 EU Countries. This research employed a conceptual and thematic analysis methodological approach to determine the state of integration of GCE in the primary education curricula of the involved countries (Global Schools, 2016). The present study follows a similar approach, although only focusing on the thematic analysis aspect of ESD implementation in two countries. Similarly to GCE, ESD is also difficult to unequivocally describe in conceptual and pedagogical terms (Global Schools, 2016). Hence, comparative studies in ESD "can be a valuable means to delineate the objectives of educational policies and practices that foster" ESD (p. 16).

As stated by Global Schools (2016), comparative studies allow practitioners, academics, and policymakers to understand what has been developed within the secondary school level of various social and political contexts and from there to search for common and shared perspectives. Nevertheless, comparative research must deviate from the traditional political mindset of "educational borrowing and lending" (Steiner-Khamsi & Waldow, 2012). Hence, this comparative study rather aims to spark a dialogue on a proactive educational comparison that challenges and leads stakeholders to action beyond observation. This action includes reflecting and evaluating

one's system (Cook et al., 2004), and utilizing a comparative perspective that pushes countries and entities to assess their strengths and weaknesses from a global perspective. These are all relevant steps that ultimately lead to a radical paradigm shift and transformational change. Moreover, it is crucial to understand that in terms of policy implementation, the implementation cannot be viewed in a straightforward and linear technical manner (Global School, 2016) because, according to Rizvi and Lingard (2010), policy processes are constantly dynamic and multi-layered. Using this research design, this qualitative study employs a comparative approach to investigate the research aim in a more tangible and contextualized manner.

3.1.2. Sampling Strategy

There is only one sampling strategy utilized in this study: namely, convenience sampling for the interviews. In this study, policymakers are defined as individuals who implement policy, such as educators, school heads, and members of government agencies who indirectly or directly work on ESD. It could also potentially include policy document authors. Practitioners, in turn, include teachers, educators, education leaders, and principals (Global Schools, 2016). The recruitment approach started with online research to inquire about prospective individuals and institutions who fit the informant categories and are involved in the practice of ESD in secondary education. Thereafter, I constructed a mailing list for each country to easily locate the names and contact information of the prospective interviewees. Then, individualized interview request emails were sent to a large number of potential informants, both policymakers and practitioners.

3.1.3. Data Collection Methods and Procedures

This study implements conducting semi-structured interviews among key informants as its data collection method. The interviews were conducted with 11 relevant participants from the two countries. Specifically, there were 5 policymakers and 6 practitioners from the two countries, which makes a total of 11 key informants. These participants were chosen to gather information about the implementation of ESD at the secondary education level in the Philippines and Finland. Specifically, the interviews aim to understand and describe the integration of ESD at the secondary education level, as well as identify the main concepts and modes of implementation of the educational policies that support ESD. Moreover, the interviews intend to investigate the roles of the main actors involved in the process. The interviews were conducted and video-recorded via Skype, which were later transcribed for qualitative research. Before recording the interview, I took

note of the informant's name, professional role, time, and date when the interview was conducted and recorded. Then, greetings and pleasantries were exchanged, followed by a self-introduction of the interviewer. Next, the interviewees were asked for permission to video-record the interview and they were reassured of their privacy and rights. Before the interview officially began, the interviewer described what the research was about and clarified any additional issues or concerns. A list of 10 questions (see Appendix A) was asked of each informant, with some 1-6 follow-up questions depending on the key informant's answer. The duration of the interviews was from 35 minutes to 1 hour and 15 minutes which depend on how much the informant decided to share. All interviews were conducted in English.

3.1.4. Data Description

The objective of this section of the report is to provide a comprehensive examination of the data sources that were utilized as the primary material for the analysis of the two Country Implementation Analyses, which will be discussed in later sections of this study. The data source is the interviews with key informants. As indicated above, key informants interviewed were categorized into two groups:

- Policymakers
- Practitioners

The total number of interviews is 11, specifically, 5-6 key informants per category as described in Tables 1 and 2.

Table 1

Interviews by Category

Countries	Practitioner	Policymaker
Finland	2	3
Philippines	4	2
Total	6	5

In Finland, five key informants were interviewed to gain insight into the implementation as well as the political, cultural, and social climate surrounding ESD. These informants were

chosen to represent key stakeholders either in the secondary education system or in ESD promotion in the country. They are:

- Key informant 1: Practitioner for a labor organization
- Key informant 2: Principal of a secondary school
- Key informant 3: School head of a secondary and comprehensive school
- Key informant 4: Lower Secondary Teacher for a comprehensive school
- Key informant 5: Practitioner for the development of Sustainability Education from a government education agency

On the other hand, in the Philippines, six prominent informants were selected for interviews to attain a thorough understanding of the implementation process and the political, cultural, and social atmosphere pertaining to ESD. These individuals were carefully selected to embody vital stakeholders within the secondary education system and in the promotion of ESD in the country. The following individuals were interviewed:

- Key informant 1: Junior High School Teacher
- Key informant 2: Principal of a secondary school
- Key informant 3: Principal of a secondary school
- Key informant 4: Senior High School Teacher
- Key informant 5: Practitioner for the implementation of the curriculum from a government education agency
- Key informant 6: Practitioner for the development of the curriculum from a government education agency

Table 2

Interviews by Institution

Countries	Ministry/Department of Education	Secondary School	Lower Secondary School	Upper Secondary School	Other Educational Agencies
Finland	1	1	1	1	1

Philippines	2	2	1	1	
Total	3	3	2	2	1

The key informant interviews are intended to provide information on the overall implementation of ESD in secondary school, as well as the factors affecting the implementation as well as the challenges and obstacles that hinder this implementation.

3.1.5. Ethical Considerations

Key participants were required to sign an informed consent prior to the interview. Only once the consent had been signed did the interviews take place. This consent contains the declaration of the aims of the interview, terms and conditions of the interview, clarification that the data will be used anonymously, and lastly, the enumeration of key topic areas that will be discussed in the interview. To ensure the anonymity and confidentiality of participants, all personal information that could be used to identify an informant was removed from transcripts and analysis tools. After each interview, the key informants' interview data files were thus referred to in a structured code. The code was structured as FI-I-Pm-01-250522 (Country Code - I for Interview - Pm for Policymaker or Pr for Practitioner - Date when the interview took place).

3.1.6. Data Analysis Methods

I conducted Thematic Analysis (TA) as the main methodological approach to identify, analyze, and report patterns and themes across a data set of each country. Thematic Analysis, according to Braun & Clarke (2012), can be utilized within a wide range of theoretical frameworks to acknowledge, examine, and report patterns of experiences, meanings, and realities. The nature of my thematic analysis is an inductive, bottom-up approach which allowed me to analyze my data set for any themes connected to the topic, and code in a variety of ways that are not influenced by my pre-existing conceptions about the research subject nor the motifs that past research on the topic may have uncovered. Moreover, I identified the themes within the data at the semantic or explicit level (Braun & Clarke, 2012). This is where I recognized themes within the data's surface-level meanings and theorized the relevance of these patterns, as well as their deeper meanings and consequences, frequently in conjunction with previous literature. This is also in connection to the research epistemology I used in this study. As Braun & Clarke (2012) describe, the research

epistemology factor of thematic analysis acts as a guide on how I theorize the meaning of my data patterns and helps with what I can infer about the data. After conducting TA for each country, I then applied comparative analysis to examine similarities and differences based on each country's analysis.

After the collection of my data, I transcribed each interview individually including my name as the interviewer, the full name of my informants, and the date and time when the interview took place. Before analyzing the data, I checked each transcript against the tapes for accuracy then created two project files in NVivo which represent the two countries. All data was uploaded and processed through NVivo and were coded in the same software. Initially, I undertook a process of familiarization with the interview data by reading through the entire data set before starting the coding process. Subsequently, I revisited the entire data set, took notes of initial coding ideas, and coded interesting features of the data in a systematic manner. In the process of coding, I undertook a deductive comparative analysis of informants' answers to identify repeated codes between interviews and refine these codes. Upon ensuring that all data extracts were coded and collated under the relevant codes, I proceeded to examine the relationships between codes, thereby organizing them into potential sub-themes and themes. Specifically, I generated overarching themes and sub-themes within each code. To evaluate the initial themes, I reviewed them, verifying their compatibility with the coded extracts and the entirety of the data set. Lastly, I developed a thematic 'table' of the analysis.

3.2. Limitations of the Study

As with the majority of studies, this research has four limitations. The first limitation lies in the fact that the data collected in this study does not represent the full reality of the countries involved. It is, therefore, important to remember that the data and its analysis as well as the results must not be used to generalize the implementation of ESD in each country as a whole. The second limitation is the limited access to key informants. Since this study involves conducting interviews with key informants who are authors of political documents or even policymakers, it is difficult to book appointments with these sources. Hence, this gives limitations to useful insights regarding the data collected. Due to this limited access, this study might need to focus merely on policy practitioners.

Third, there is a lack of previous research studies on the topic, specifically the lack of ESD research in the Philippines. While there may be adequate research on ESD in Finland and the rest of the HICs, there is still an evident lack of ESD research in most LMICs specifically in the Philippines. This is a limitation because prior research studies that could be relevant and beneficial to the thesis might be limited. However, this limitation also helps identify literature gaps, wherein there is a need to further develop the study of ESD in LMICs. Finally, the last limitation of this study is the conflicts in terms of data translation. Although the interviews are conducted in English, all informants do not have English as their mother tongue, which could pose a conflict in translating some words to English. Also, albeit the translation of data is not necessarily problematic, the English translations might not manifest correctly in comparison to what is originally intended by the informants.

4. Results

4.1. ESD Implementation in Finland

There is a major theme across the whole interview data set showing that the implementation of ESD is not formally evaluated in the Finnish education system, and there are no metrics that evaluate its implementation in schools. Moreover, implementing ESD or the concept of sustainable development in schools is not mandatory. This means that even though the idea of sustainability is integrated into the educational policies of the country such as the curriculum, and encouraged and promoted by the government, its implementation remains at the discretion of the municipality, at the school level by school administrators, and at the discretion of teachers. Hence, it is crucial to remember that the implementation discussed in this analysis does not reflect all schools in Finland.

Three themes are identified throughout the interviews with policymakers and practitioners regarding the implementation of ESD in the Finnish secondary education system: (1) Current Implementation of ESD, (2) Factors affecting the implementation, and (3) Challenges and Obstacles. These themes reflect the individual experiences of policymakers and practitioners regarding the implementation of ESD. Each theme comprises five specific sub-themes, which serve to further elaborate the overarching topic (see Table 3).

Table 3

Implementation of ESD in the Finnish Secondary Education System: Themes and Sub-Themes

Themes	Current Implementation	Factors Affecting the Implementation	Challenges and Obstacles
Sub-Themes	Curriculum	Financial Resources	Attitudes and Perspectives
	Cooperation of Stakeholders and Actors	Autonomy of Schools and Teachers	Lack of Monitoring and Evaluation
	Programs from NGOs	Choice of Schools and Teachers	Integrating ESD in School Subjects
	Sustainable Development in the School Culture	Attitudes and Competencies	Lack of Teachers' Knowledge of ESD
	Teaching	Teachers' Education	Teacher's Time

Theme 1: Current Implementation of ESD

A major theme throughout all interviews was the ways in which ESD is currently implemented in the secondary education system in the country. Every informant strongly felt that ESD is integrated into the curriculum and implemented in secondary schools in various ways. All mentioned and acknowledged that the concepts and principles of ESD are embedded in the national core curriculum for basic education and upper secondary education in the country. Within this theme are five sub-themes related to the current implementation of ESD, namely the curriculum, cooperation of stakeholders and actors, programs from NGOs, sustainable development in the school system, and teaching school subjects.

Curriculum

All informants emphasized the role that the curriculum plays when implementing ESD, especially the integration of ESD-related concepts in the curriculum. All of them also acknowledged and recognized the existence of concepts and principles related to sustainable development and its other-related themes in the curricula.

> I1: I think, the core curriculum that we have for the comprehensive school and the upper secondary school, if you read there, …in the legislation, there are norms that the schools

> should follow. So there, it exists. …And in this core curriculum, you have these global topics like sustainable development…
>
> I3: When we look at our curricula and you know, the money that we can apply for and these kinds of things, they are all linked to the Agenda 2030. …So, in the curriculum, you have. On one hand, you have the subjects and the goals for the subjects, but then you have the competencies that would have to fit into all subjects and all our activities.

In terms of the current implementation of ESD, the integration of sustainable development in the curricula itself shows that ESD is embedded in the curricula which ultimately affects the implementation of ESD in schools.

Cooperation of Stakeholders and Actors

There is a major theme across all interviews which shows that the implementation of ESD in the country's secondary education system is reflected through the cooperation and partnership of stakeholders and actors. This involves partnership and cooperation with international schools, among schools in Finland, within the community, and with other organizations.

> I2: We meet up twice a year with other teacher training schools that we work on sustainable aspects of all our schools. And we try to share, and we try to incorporate, for instance, ways of bringing it up or ways to foster our students. And the last thing that we did was this spring, where we had a connection with a teacher training school in Kenya, where we first met them a couple of times online, and it is sustainable in the way that we don't do any mobilities. We just share information online and share ways. …So, I feel that that is a very concrete way how to share and enjoy each other's progress when it comes to sustainable development and fostering sustainable development in schools.
>
> I3: Of course, you will find a lot of different kinds of you know, organizations that work with these things. And they want to come to school, and they want to do different kinds of things.

This shows that the concept of sustainable development is implemented in some schools through partnership and cooperation.

Programs from NGOs

Throughout the interviews, there is a recurring theme that there are programs related to ESD conducted by various NGOs which are utilized by some schools in Finland. These programs include *Vihreä Lippu* (Green Flag program), *Kestävä Koulu* (Sustainable School program), and the Green Certificate program for vocational upper secondary schools which is conducted by the OKKA Foundation.

> I1: We have this Green Flag, *Vihreä lippu*. It is an international system that– it's the FEE Suomi F-E-E Finland, but it's an international organization, and that is organizing these Green Flag schools of Finland. And I'm on the board and they have a yearly report on how they are running the Green Flag system in school and there are hundreds or maybe nowadays a thousand of these schools.

> I5: They have this Green Flag program, for example, and they have some schools, that are participating in this program, and then they are doing this– like, measuring in the school, how many come with the bicycle or who comes with a car and you know, this kind of stuff, and then they make something around it, some implementation or something, and then they are measuring it again at the end of the project. And they are doing it like every year, different project.

Interestingly, however, it is only the policymakers who mentioned this Green Flag program by the FEE Suomi organization, and none of the practitioners have mentioned it. Moreover, the Sustainable School program and Green Certificate program were also mentioned.

> I1a: We have this great task. We call it *Kestävä Koulu* (Sustainable School), and this project has been going on for a couple of years. And there's a lot of organizations, third-party non-official organizations– most of them are involved with sustainable development and nature and that kind of things. And in the vocational upper secondary schools, this OKKA Foundation is also promoting this kind of system called Green Certificate. The Green Flag is for elementary schools and even for kindergartens and for comprehensive schools, but this Green Certificate requires more from pupils and students and it's better for the upper secondary school. It's like a quality management system type of thing.

Like the Green Flag program, only one policymaker mentioned these programs, and none of the practitioners mentioned them. This shows the discretionary aspect of these programs wherein it is the choice of the school administrators whether to adopt these types of programs. Nevertheless, this shows that programs from NGOs are currently a means of the implementation of ESD in secondary schools.

Sustainable Development in the School Culture

Another major theme across all interviews is the embodiment of sustainable development in the school culture. Most informants mentioned that the idea of sustainability is practiced and applied in the whole school system and not only in school subjects or teaching. This includes embodying the concept of sustainability and principles of sustainable development in school planning, school campaigns and programs, and school facilities.

> I2: So, we make different types of plans. So of course, we have annual plans, but I don't consider long term, but we have three-year plans that we work on. For instance, for the last two years and the coming year, we have themes that should run throughout everything that we do in school, and currently, it is sustainability, creating value in school, and well-being. So those three aspects are also all linked to Sustainable Development Goals.

> I4: Of course, in school, I've been involved in the group working with ecological sustainability on how to mobilize that and how to make it visible in school. We had also these recycling campaigns, and campaigns of not throwing away food, for instance, at lunch. …And I mean, we have all kinds of this *Temadagar* (Theme Days) that we work with something. For instance, we have the Östersjödagen (Baltic Sea Day), where the theme is the nearby seas, and how we can protect them and use the sea resources wisely for instance. Not overfishing, for instance, we might go for a walk and pick garbage up to the shores.

It is evident that school planning and school campaigns and programs are utilized to implement the concept of sustainable development (SD) in schools and are important steps in educating students about the importance of sustainable development. There is also a strong emphasis on the involvement of school administrators and teachers in these campaigns. Moreover, sustainable development is also becoming an increasingly important aspect of school facility

development and planning. According to several informants, the school places a strong emphasis on sustainability in the overall design and construction of its facilities.

> I2: At the moment, when we are planning to build a new building, so one-third of our houses are going to be demolished and we're going to build a new building. So, material choices, water usage, electricity, green spaces, and everything like that.

> I3: We also have programs when it comes to sustainability in the use of electricity and those kinds of things. So that's also something that is important to remember.

The emphasis on sustainability in the school facilities development and planning by several informants suggests that some schools are actively working to promote environmentally friendly practices and create a sustainable learning environment for the students. In the context of implementing ESD in schools, this shows that incorporating sustainability into school facilities is necessary.

Teaching

Another major theme across interviews is the integration of the principles of sustainability in teaching and in school subjects. Interestingly, the two practitioners interviewed both mentioned embedding the concepts of sustainability in teaching.

> I3: Well, I think in a school, you need to be concrete enough if you want to reach out to your students, and your pupils. And that's why we talk about things like what you eat, how you transport, travel, you know, energy, for example, these kinds of issues.

> I4: Of course, in my subject, as we work with materials, for instance, we work with both cultural sustainability in the terms of preserving and some cultural heritage as well, when it comes to, for instance, making things with your hands, which is a very traditional thing to do in Finland. So, taking those things, teaching those skills. And of course, economic, and ecological sustainability in the case of using materials and what things cost and how to be ecological in that way. And of course, attitudes towards nature, towards repairing things instead of buying new, new things.

It is evident that the most important factor in the implementation of ESD in schools is the integration of the concepts of sustainability into teaching. However, one teacher emphasized that ESD is not formally or explicitly spoken about.

> I4: I mean, when we make these field trips, no one says that "Now, we work with sustainability". Well, I mean, it's a part of so much more. It's their curiosity about how things are made. It has to do with strengthening the group, to do things together outside of the formal school building. So, I wouldn't say that when we take a field trip to the sawmill, we say that now we work with sustainability. But these things are well-integrated on such topics.

This shows that the concepts of sustainability are not formally or even verbally discussed, instead, it is implicitly integrated into teaching topics. However, this also shows that regardless of the opportunities to integrate sustainability in teaching, it is still at the discretion of the teacher on how deeply, widely, shallowly, or limitedly he or she wants to tackle these issues in his or her teachings.

Theme 2: Factors Affecting the Implementation of ESD

Another main topic discussed by policymakers and practitioners during the interviews is the factors affecting the implementation of ESD in the Finnish secondary education system. Every informant emphasized the key factors that affect this implementation. From this, five distinct sub-themes were identified. These sub-themes are (1) Financial Resources, (2) Autonomy of Schools and Teachers, (3) Choice of Schools and Teachers, (4) Attitude, Values, and Competencies, and (5) Teachers' Education.

Financial Resources

Most informants emphasized the funding and grants that schools can apply to and receive from the government to conduct or support projects that are related to SD. This funding is extremely crucial in developing projects that could help implement ESD in schools.

> I2: So, next week, we are applying for a grant when it comes to sustainable development in schools. So that runs for two years where we might get a grant. We're probably certain that we'd get something, but whether we get what we want is another aspect. But if we do,

> then we are on a mission to spread what we are doing even more locally and nationally at least, but also throughout our university internationally.
>
> I3: If we want to develop certain kinds of activities and things like this, then we have to apply for that money. And what we can see from this project money and development money that we now can apply for is that they are all somehow linked to sustainability which is a good thing. Now, as we talk, in the middle of June, we will also have the possibility to apply for project money for sustainable activities in the school.

It is evident that the financial resources that fund sustainability-related projects are crucial factors when implementing ESD in schools. It also enables opportunities for schools to develop projects related to SD.

Autonomy of Schools and Teachers

Several informants emphasized the fact that there is strong autonomy of schools and teachers in Finland. This shows that this autonomy has a lot of impacts, including the fact that there are no school inspections in the country, which can also influence the implementation of ESD in schools.

> I1: In our system, we have what I call, two levels of autonomy in our school. The first level of autonomy is the organizers' autonomy. Even though we have this national core curriculum, and we have this National Board of Education, they cannot go to the school and start making inspections. So, the implementation is very autonomous from the organization. And then, we have the autonomy of the teachers, which involves pedagogy. So how do you do your own teaching in your own class? Again, it's up to the teacher. So, in Finland, the principals don't go around the school and inspect how the teachers are teaching. That's not Finnish culture.
>
> I4: If it's enough, and if it's integrated because… the freedom of– I mean, we follow the curriculum, of course, but we don't have the tradition of school inspections in Finland. So, whether it's [ESD] put into practice or not that I can't say.

This shows that the autonomy of schools and teachers that is embedded in the Finnish education system is another crucial factor, which has implications for the implementation of ESD in schools.

Choice of Schools and Teachers

There is a significant repeated theme among the informants that the implementation of ESD in schools is not mandatory by law, instead, its implementation depends on the choice of the school administrators and teachers. This means that ESD or the concept of SD is something that teachers or school administrators will only implement if it's something that they personally care about. Specifically, in teaching, it is at the discretion of teachers how deeply or how limitedly they want to integrate and emphasize it in the teaching of their subjects.

> I3: I would say that there is enough stuff in the curriculum to help you to work with these issues in a good way. But you can neglect them, and you can make them smaller than they actually are. …What you stress in your teaching, what you stress in your school culture, what you stress in the activities that you do in school, is up to you, more or less. It's very much up to the principals and up to the teachers and up to the staff of the schools what attitude and what kind of climate and what they stress in the school culture or school activities.

> I5: It's also somehow related to this values discussion so that somehow it seems still that it's some value you either appreciate or don't and you can choose or don't. …But somehow, it's still in this old-fashioned role in some schools. Maybe it's like you're going to choose if it's close to your heart, but you don't have to choose if it feels like it's not so important to you.

In the context of ESD implementation, it is crucial to remember that this implementation is at the discretion of schools and teachers.

Attitudes and Competencies

A major and heavily repeated theme across the interviews is the attitudes and competencies of individuals toward the concept of sustainability and sustainable development.

> I3: It's the attitudes. I would say that it's both the weakness and the strength of the system that the politicians, the directors of education, the principals, and then the teachers, you know, how they implement this.

> I4: It's a question of providing new skills. It's about knowledge about things. And it's about attitudes, attitudes towards different aspects.

These attitudes, values, and competencies greatly affect the implementation of ESD in schools since most choices that individuals make about a certain issue, in implementing ESD for instance, are rooted in their attitudes towards it, as well as the values and competencies that they have.

Teachers' Education

Several informants also mentioned another significant theme which is the teachers' education. Some of them mentioned that there are current projects, strategies, and plans to incorporate and strengthen the promotion of sustainable development in teachers' education. However, the concept of sustainability is still not heavily emphasized or taught in teachers' education.

> I1: And then, again in the teachers' education, they have also these current projects that are promoting this sustainable development. Some of them are new, some are a bit older.
>
> I5: And the other thing is also the teachers' education that– it's not very strongly there. So, it should be more strongly in the teachers' education.

This shows that teachers' education is a crucial factor to consider when implementing ESD in schools, as they are the bridge when teaching the concepts of SD in classrooms.

Theme 3: Challenges and Obstacles in the Implementation of ESD

Another heavily repeated theme across the interviews is the challenges and obstacles when implementing ESD in the secondary education system. There are four sub-themes identified throughout the interviews, namely (1) Attitudes and Perspectives, (2) Lack of Monitoring and Evaluation, (3) Integrating ESD in School Subjects, (4) Lack of Teachers' and Administrators' Knowledge of ESD, and (5) Teacher's Time. These themes reflect the individual experiences of policymakers and practitioners regarding the challenges and obstacles they face when implementing ESD.

Attitudes and Perspectives

Another major challenge repeated in the interviews is the various perspectives and attitudes of organizations and individuals toward SD. These challenges on the different ways of perspective and attitudes are an engrained obstacle that ultimately has a huge impact on the implementation of ESD in schools.

> I2: I think that ESD is correctly defined but people still think about it as being an environmental aspect and that the people that work within or with the environment are the ones who are responsible for finding the solution. So, this is something we also try also to broaden, the aspects that fit under this umbrella. It's not only environmental aspects, for instance, but the Agenda 2030 and sustainability goals that bring in that.

> I3: Of course, we will also get different kinds of responses from the society around us. Some people say, "No, this is just a bluff, the whole thing". And some people say that "Yes, we need to work on this".

It is evident that there are various perspectives, and ways of thinking that directly and indirectly affect the way people perceive the concept of SD, which consequently, also impact the implementation of ESD in schools.

Lack of Monitoring and Evaluation

Some informants mentioned that it's difficult to know how widely and deeply the concept of SD is implemented in schools and this type of information is still lacking.

> I1: The big question is how widely and how deeply it's implemented, and that's the thing that we are trying to promote. Yes, on paper they exist, but I would say, maybe, this is now, out of my head, and don't follow these numbers. But I'd say that we have a percentage maybe from 5 to 10 that are active schools. And then we have this large majority that they know they do something and not enough. And then, then you have the rest. So, our main idea is that these active schools would be the majority of the schools.

> I5: Like in a curriculum, it's really quite well present in the curriculum but some studies show that it's not still– even though it's in the curriculum, it's being that in our everyday life in the schools. So that's like the main problem.

This challenge shows that there needs to be a monitoring and evaluation mechanism to gain an idea of how effective the implementation of SD is in schools and what aspects need improvement.

Integrating ESD in School Subjects

When asked about the integration of ESD in school subjects, several informants claim that it is a challenge to do so. There is also a strong emphasis on how it's easier to integrate the concepts of sustainability in some subjects, while it's harder in others.

> I1: I would say that in the natural sciences, it's quite easy. If you think of Physics or Biology, it's easy to solve what's happening. But then, when you go to this, more related to the society and the human sciences, economics, governing, this kind of things, it gets very difficult…
>
> I2: But most schools find it certainly challenging to integrate them, for instance, in Math or Sports or something like that.

Another practitioner expressed the connection of this challenge to the fact that teachers teach different subjects and focus on different things.

> I4: We teach different subjects, and different subjects focus on different things. When it comes to sustainability, of course, the context has to be right for us to make an impact. I have a hard time addressing the question of global poverty, for instance, in my subject, because it's not a good context, whereas social sciences might be a very good context for those issues. Whereas it might not address the issues of using materials and natural resources wisely. So, it's hard.

This shows that integrating the different foci of ESD in school subjects is another major challenge to the implementation of ESD, especially for subject teachers who teach different fields and subjects.

Lack of Teachers' Knowledge of Sustainability

Some informants mentioned that the lack of teachers' knowledge of SD or competencies in teaching SD is another major challenge in the implementation of ESD in schools. They acknowledge that not all teachers are knowledgeable about the concepts of SD, and this affects their ability and confidence to teach it.

> I1: This is a big systematic problem. And… you cannot be certain in teaching these kinds of very complex, I would say, chaotic systems to these kids or students. It's very

> challenging. …And then, finally, in the end, we don't have answers to many of the questions that we have.
>
> I5: It's related to this knowledge about these sustainability things. So, some research also says, and [based] on my own experience in this sector, there are not many things done because if you're a teacher and you feel like you don't know really know what you're teaching… So, it's like you should maybe know a bit more about sustainability and sustainability education, to be more confident to teach it… So, there's that.

In the context of ESD, teachers' knowledge of SD and their competencies in teaching it must be fostered because this poses a great challenge when implementing ESD.

Teacher's Time

The lack of teacher's time is another common theme in the interviews. Some informants mentioned that there are a lot of topics to be taught and those things already take up so much time of the teachers' time. There is also an emphasis on the difficulty of finding time to educate oneself.

> I4: And of course, time, I would say. Time to educate yourself on– how I could find time to do this with your class, as well. There's so much to teach these days.
>
> I5: And then there's this time matter. Of course, teachers' job is really tense already. So, there's a lot already. So, like anything, like new or big or like hard or anything, it's harder to get in really nowadays. So that's a big challenge.

This shows that the lack of teachers' time is another challenge to consider when it comes to implementing ESD in schools.

4.1.1. Concluding Remarks

Overall, ESD is currently implemented in the Finnish secondary school system, with the curriculum playing a vital role in this implementation. Cooperation among stakeholders and actors, particularly with foreign schools and organizations, appears to be critical for the successful implementation of ESD. Non-governmental organizations (NGOs) also provide ESD-supporting programs, such as the Green Flag and Sustainable School programs. Furthermore, some schools model sustainable development in a variety of ways, such as school campaigns and school planning, and practitioners are incorporating ESD concepts into their daily work. These findings

show that ESD is ingrained in the Finnish secondary school system, emphasizing Finland's commitment to a sustainable future.

Moreover, the findings revealed that different factors influence the implementation of ESD in the Finnish secondary education system. Financial resources, the autonomy of schools and teachers, the choice of schools and teachers, attitudes and competencies, and teacher education are among the recognized determinants. Funding and grants for sustainability-related initiatives are critical for schools to implement ESD. Similarly, the autonomy of schools and teachers allows them to choose how much sustainability education they incorporate into their teaching and school culture. Furthermore, the decision to implement ESD is influenced by the personal views and values of teachers and school leaders. Attitudes and competencies are also crucial in the implementation of ESD, as they affect the choices made by individuals. Lastly, teachers' education is also important in the implementation of ESD since it provides them with the knowledge and competencies needed to include sustainability education in their teaching practices. Understanding these characteristics is critical in developing and implementing effective ESD policies and practices in the Finnish educational system.

Lastly, implementing ESD in the secondary education system presents several challenges and obstacles. Attitudes and perspectives, a lack of monitoring and evaluation, integrating ESD into school subjects, a lack of teachers' knowledge of ESD, and teacher time are among the themes discovered from interviews. These difficulties reflect the varied viewpoints and ways of thinking that influence ESD implementation in schools. They also emphasize the necessity of growing teachers' understanding of SD and their competencies in teaching it, as well as the need for monitoring and evaluation procedures to measure the success of ESD in schools.

Education for Sustainable Development is not included as a distinct subject within secondary education, nor is the term exactly stated in the curriculum. The implementation of ESD in secondary schools is primarily dependent on the actions of teachers, followed by those of school principals or administrators, and then by policymakers. Notably, ESD is not mandatory, and teachers are provided with recommendations that they are free to choose to follow or not. As such, there is currently no national legislation mandating the implementation of ESD in secondary education. The system is relatively flexible, leaving the extent of ESD coverage in the classroom to the discretion of individual teachers. Similarly, the promotion of sustainability concepts in

schools is also left to the discretion of school administrators. As a result, the promotion of ESD is inconsistent and not widely established. To address this, there is a need for a more systematic approach to teacher training and educational policy, as well as stronger state coordination, initiative, and monitoring and evaluation of ESD topics in the Ministry of Education's reports.

4.2. ESD Implementation in the Philippines

A significant recurring theme across all interview data sets reveals that the implementation of ESD or the concept of sustainable development in schools is not obligatory. Despite the integration of the idea of sustainability into the educational policies of the country, and the government's encouragement and promotion of ESD, its implementation remains subject to the discretion of the municipality, school administrators, and teachers at the school level. However, there are ESD-related concepts such as Tree Planting and Greening Programs that are specifically mandated and required for schools and teachers to conduct in their work. Moreover, similar to the Finnish system, there is also a lack of monitoring and evaluation metrics and systems that could evaluate the implementation and impact of these ESD-related initiatives and programs in schools. Lastly, it is crucial to remember that the implementation discussed in this analysis does not reflect all schools in the Philippines.

Throughout the interviews conducted with policymakers and practitioners regarding the implementation of ESD in the Philippine secondary education system, three distinct themes have been identified. These themes are (1) the Current Implementation of ESD, (2) the Factors affecting the implementation, and (3) Challenges and Obstacles hindering the implementation. These themes reflect the unique experiences and perspectives of the policymakers and practitioners involved in the interviews. Each theme encompasses 1-2 sub-themes, which provide a more in-depth analysis of the overarching theme. A table presenting these sub-themes can be found in Table 4.

Table 4

Implementation of ESD in the Philippine Secondary Education System: Themes and Sub-Themes

Themes	Current Implementation	Factors Affecting the Implementation	Challenges and Obstacles
	Curriculum	Importance of Research	Attitudes and Perspectives

Sub-themes	Cooperation of Stakeholders and Actors	Information, Education, and Communication (IEC)	Top-to-Bottom Policymaking
	School-Based Initiatives and Programs	Choice of Schools and Teachers	Class Size
	Teaching	Obligatory Nature of School Programs	Lack of Facilities, Resources, and Materials
			Lack of Teachers' Knowledge of ESD
			Curriculum Congestion
			Lack of Continuity in the Curriculum
			Lack of Monitoring and Evaluation

Theme 1: Current Implementation of ESD in Secondary Education

A major theme across all interviews shows that ESD is implemented in the country's secondary education system. This is reflected in various ways including the curriculum, cooperation of stakeholders and actors, school-based initiatives and programs, and through the teaching of school subjects.

Curriculum

A prevalent theme across the interviews was the integration of ESD-related topics into the curriculum. Most of the informants noted that a variety of ESD topics, including climate change, were incorporated into some school subjects due to their existence in the curriculum.

> I4: It's already embedded in our curriculum, and we have essential learning competencies that dictate the inclusion of all these topics on ESD.

> I6: Well, Education for Sustainable Development has been in the curriculum for quite some time. Though the nomenclature of ESD is quite new to the Department of Education, the essence or some of the basic concepts relative to sustainability, environmental protection,

> peace education collaborative efforts of various countries or societies, are already in the curriculum.

There was also a particular emphasis placed on the inclusion of Disaster Risk Reduction and Management (DRRM) and Indigenous Knowledge Systems and Practices (IKSPs) into the curriculum. Several informants emphasized the integration of DRRM in the school system, especially in the school subjects. Even though there is no direct link between DRRM and sustainable development, this still shows that DRRM is crucial in the implementation and realization of ESD in the country's education system since this is closely linked with climate change issues in the Philippines.

> I1: Climate change is just part of the topic to be discussed through research even, but no practical answer to solve the problem. And maybe, we also have that Disaster Risk Reduction Management, we have that now in all communities because of these things that happen to us, especially when a storm comes… So those things, yes... We integrate them into our topics, especially in science.

> I4: And then when I joined DepEd, we started teaching already. When I was still in junior high, we started teaching DRRM, Disaster Risk Reduction, and Management using the national framework so we could foster resiliency among our students. …It is for the learners to be aware of the effects on what they're going to do in times of disasters that may fall upon their places or even in school.

It is evident that the implementation of ESD in the country is closely related to climate change education and DRRM education. Moreover, the implementation of ESD in the country is also closely associated with IP Education or IKSPs. Some informants claim that their school integrates and practices these topics in teaching.

> I2: Now there are many integrations that are happening. For example, we have now this improvement in the curriculum which is still a part of the school-based management is the IKSP, the Indigenous peoples' education (IP Ed.). So, to fully make learning meaningful and useful to our students, we have to integrate what are Indigenous knowledge and practices in their own areas. Cause sometimes we learn about international or foreign countries and yet students still don't know about their own environments themselves.

> Knowing this can help them in their learning. So, we have this integration of indigenous knowledge systems and practices.
>
> I4: Our SDO (Schools Division Office) is actually very passionate about it, right? By following the IP Ed. Framework and they have already launched their own studies about indigenous knowledge, systems, and practices. And I joined one training time so that we could frame, indigenize, or contextualize the learning development plans.

This shows that there is a strong emphasis and importance on IP education given the many IP groups in the country and that it is essential to the implementation of ESD in the nation. Overall, these findings demonstrate the various ways in which ESD is directly and indirectly integrated into the curriculum.

Cooperation of Stakeholders and Actors

Each informant emphasized the cooperation and partnership of stakeholders and actors when it comes to working together to implement ESD-related themes and topics in schools. This involves partnership and cooperation among schools, international organizations, government agencies, and the Department of Education (DepEd) offices.

> I1: Okay, we integrate that into our reading comprehension, literature. We inform them that climate change is like this and like that. Okay, we try to educate them on what to do, but to explain further, we call on experts on those things in different departments maybe. Maybe we could call, or we could invite a speaker from the DOST (Department of Science and Technology) to talk more about this climate change. For the DRRM, we would call maybe the NDRRMC (National Disaster Risk Reduction and Management Council) because they are the first ones to do the rescue if there are some casualties and accidents, and so on, and so forth. We call those experts, we call them to come and talk and to tell them more about it because they are trained, they are educated well with those, and they know more about it than it is because teachers would only read an article, try to explain, simplify them to our lesson. That's it. So, these agencies would be a great help to come and try to assist also and help the teachers in trying to explain those critical topics to be discussed.

> I6: In fact, based on our experience, at least in the Bureau of Curriculum Development, we were able to forge, for instance, partnerships with the Philippine Normal University, with Melbourne, with other international agencies and national agencies relative to the integration of various government thrust and international education thrust.

This shows that the concepts and themes related to sustainable development are further strengthened in schools through this cooperation between external partners and teaching school subjects and conducting school programs.

School-Based Initiatives and Programs

Throughout the interviews, there is a recurring theme that there are school-based initiatives and programs related to the concept of SD implemented due to either the discretion of the school principals or orders from the DepEd higher offices. Nevertheless, these programs include greening programs such as tree planting, ring weeding, etc.

> I2: So, in our school, we implement orders or programs from our department, which in the long run I believe is addressing actually the Sustainable Development Goals, because I believe all the programs that we are implementing, it could be through DepEd orders or DepEd memorandums or any issuances from our central office, is towards quality education.

> I4: And then this time that I'm teaching Senior High School, we've been doing tree planting activities like that, to teach, of course, our students how to be responsible in helping the mitigation process so that… Especially in the case of Baguio City, we have to really do greening programs because it's slowly decaying as an urban city. And we have to take part in different environmental activities, such as tree planting, ring weeding, and plugging actually, we do plugging, and cleaning within our environments. …Even teachers are required to join or were encouraged in a way to join these greening programs.

Interestingly, three practitioners have emphasized these school-based initiatives and school programs, yet none of the policymakers have mentioned it. Nevertheless, this shows that the initiatives and programs of schools, which are either directed from higher offices or initiated by school administrators are a means of the implementation of ESD in schools.

Teaching

Another major theme across interviews is the integration of the principles and concepts of SD in teaching. Interestingly, almost all informants interviewed mentioned embedding the concepts of SD in teaching.

> I1: Yes, I follow the curriculum and the competencies that would be delivered. But as you can see, we try to integrate things…
>
> I4: When I handled Understanding Culture, Society, and Politics in Grade 10 Contemporary Issues, I really mobilized my students to connect with their LGUs (Local Government Units) concerning issues they have in their environment. And then I had them capture these particular issues in their environment and make proposals on how they're going to address this and implement an activity on it. And somehow a few of our learners were able to make it to partner with their local government units.

It is evident that there are concepts and themes related to ESD that are being taught in secondary education classrooms in some schools in the Philippines. However, it remains at the discretion of the teacher, and the term *Education for Sustainable Development* itself is not formally or explicitly spoken about. Moreover, one policymaker emphasized that the teaching of the concepts or themes related to ESD is "disciplinal in nature".

> I6: The approach to doing so is very disciplinal in nature or subject-oriented. Meaning, most of these contents are actually being taught separately in various learning areas. For instance, regarding environmental education, this is usually integrated or usually appears in science education. There are also messages or concepts or learning competencies addressing environmental education in social studies. …For instance, if one content or if one concept is applicable to a learning area since again, the approach of the Department of Education is still disciplinal in nature. And so that's the way how we teach ESD.

This shows that the concepts of ESD are taught separately depending on their close relation to a specific subject. Moreover, it remains at the discretion of the teacher to determine the extent, breadth, and depth to which they choose to address these ESD-related topics in their teachings.

Theme 2: Factors Affecting the Implementation of ESD

During the interviews, policymakers and practitioners mentioned various factors that impact the implementation of ESD within the Philippine secondary education system. Four distinct sub-themes emerged from this, namely (1) the importance of research, (2) information, education, and communication (IEC), (3) the choice of schools and teachers, and (4) the obligatory nature of some school programs. These themes were derived from the individual experiences of the interviewees and serve to provide a comprehensive understanding of the overarching topic of the factors influencing ESD implementation.

Importance of Research

Some informants also mentioned the importance of research when it comes to integrating and implementing ESD in secondary schools, most especially when creating policies about it. They felt that there is a need for further quality research in the country, especially related to ESD.

> I1: That's why we need to research more about it. Because as I have said, if you are pertaining to Filipino research, it is not enough. But if we would be having more, including international research- but they are not that kind of into our curriculum, so it's difficult for us to apply it.

> I2: Usually, before things are put into policy, there should be research. A database that is research. This has a positive impact. Like we said, even an ordinance, even in the LGU, right? Before they make an ordinance, there should be a consultation. We have to get the voice of the customer, the voice of the people concerned, voice of the constituents. Cause that's where they base whatever policy that is that they want to create.

In the context of implementing ESD, quality research that captures the insights and status of the policy's target audience is an important step that must be taken in policymaking.

Information, Education, and Communication (IEC)

Another important recurring theme is the role of information, education, and communication (IEC) when implementing ESD in schools. Throughout the interviews, some informants highlighted the importance of information and the responsibility of organizations to disseminate and inform, especially the community members such as parents.

> I2: It's just a matter of information. IEC (Information, Education, Communication) to inform what really are those changes. …So, we have to let them know and explain well, not only to the teachers but even to the whole citizenry because they are involved. Because it's not only the teachers who will ask "what is that all about?", even parents.
>
> I5: We don't just implement something for the mere sake of implementing it because being responsible with what we inform people is also finding how it will affect them emotionally and how it will change their lives eventually, right?

It is evident that there are huge repercussions of information dissemination that directly affect the community members' attitudes and perceptions toward ESD, which ultimately affect the outcome of ESD implementation in schools.

Choice of Schools and Teachers

The informants consistently indicated that the implementation of ESD-related topics in school subjects is not legally required, but rather is left to the discretion of school administrators and teachers. This implies that the integration of ESD or sustainable development concepts into daily operations is solely based on the personal interest of the educators.

> I3: So, you know, we as administrators, especially in the public institution, if we see a certain program that we can incorporate, then we are to incorporate. Especially when we see that it's important.
>
> I4: Based on my experience in the private school, it depends upon the forte of the teacher. It depends upon where the teacher is really rooting his or her grounds when it comes to integrating ESD, right, sustainable development goals into his or her classes, right? …So, it's like, the teacher frames her or his own learning objective so that it will go beyond her or his teaching approach, so it's like there's application. So, it depends on the strategy of the teacher. That's where you can see where the teacher is aligned… if the teacher is an environmentalist or not.

In this case, it is crucial to remember that ESD implementation is hugely at the discretion of schools and teachers, which depends on how they personally view the importance of the topic of sustainable development.

Obligatory Nature of Some School Programs

There is also a huge emphasis on how government agencies require schools and teachers to conduct various programs in their work responsibilities, wherein some of these programs are closely related to the concepts of ESD. Moreover, it is evident that the higher offices and school administrators have the power and position to give memorandums that teachers are required to follow.

> I3: So far, we administrators can give memorandums. So, once a memorandum is laid out and given, they are forced to follow [chuckles]. They are forced to implement. Though with murmurs, then nothing, they need to, as long as a memorandum is released.

> I4: There's a yearly clearance that you really have to do a greening activity for teachers, greening activity before you can get your clearance signed. It's mandatory [chuckles] for government workers. …By the way, because in all subjects, you are required to really integrate somehow if not part of your lessons.

In public schools, there appears to be a required greening activity that teachers are obligated to conduct in their classes. Whereas, in private schools, the higher offices and administrators can provide memorandums that are also obligatory for teachers. In the context of implementing ESD, the government and higher offices have the power and position to further strengthen or lessen this implementation.

Theme 3: Challenges and Obstacles in the Implementation of ESD

A recurring theme that emerged across the interviews conducted is the challenges and obstacles that pertain to the implementation of ESD in the secondary education system in the country. This shows that the implementation of ESD is hindered by numerous challenges and obstacles. This theme has 8 sub-themes, namely the attitudes and perspectives, top-to-bottom policymaking, class size, lack of facilities, resources, and materials, lack of teachers' knowledge of ESD, curriculum congestion, lack of continuity in the curriculum, lack of monitoring and evaluation.

Attitudes and Perspectives

A major challenge repeated in the interviews is the challenges related to the attitudes and perspectives of individuals and organizations, specifically fears and resistance to change. Some informant asserts that there is a fear of failure and that community members have a fear of the impact of these various program implementations in their lives.

> I2: And then again, it's like there is a fear that if I will do this one, what if it fails? …So, there is that attitude. It's like the fear that the activity will fail.
>
> I5: So, the behavior of people in the organization and how that will be advocated to the parents, no less, who could be fearful of what would happen? Say could be fearful because they won't have the resources, fearful because of other things, other factors, family factors, you know.

These challenges on the fear of failure and fear of effects are an engrained obstacle that ultimately has a huge impact on the implementation of ESD in schools. Some informants also emphasized the resistance to change by school employees and community members.

> I2: Usually if there is a new change or if there is a change introduced just like the K-12 curriculum, there is also a bit of difficulty at first. You know that it is the nature of our teachers and even the other people in the department, the resistance to change because we are used to our comfort zone.
>
> I3: Other factors would be… let's say the parents themselves because some of our parents are not open, and some of them are still hesitant. Or they might say, "Oh, they should only teach the basics" or something like that. Some think that way. So yeah, the parents are not open sometimes to changes or new concepts. That's it. Maybe another factor would be the employees themselves. We cannot deny that not all of them would be open also for implementation.

It is evident that this human tendency to resist change is another challenge that must be taken into consideration when implementing ESD in the country's secondary education system.

Top-to-Bottom Policymaking

Several informants mentioned that the top-to-bottom policymaking done by government officials is one of the biggest obstacles when it comes to ESD implementation in the country.

> I1: One factor for me, which I have observed, is that the officials that are in the offices have not gone through the lower level that teachers are experiencing, and they are not hands-on with the students or the learners that we have now. So, they just keep on doing policies or creating policies, creating curriculums, but they could not consider the dilemma

that we are having here, below them. Because as I have said again, they are not hands-on with the learners. If only they would come down and observe or even try to be the teacher inside the classroom, then maybe they would understand the difficulty that we are having as teachers. They give us policies, but we cannot attain them, or we could not follow them. Why? Because we have to level with the learners. We could not just impose things, because they will be our fallback. Teachers will be having those kinds of fallback and the learners will not be able to learn anything.

I2: The problem sometimes is that policies are from top to bottom. Although they say there are consultations, they consulted there. But as I said, did they consult all the people involved? Or is it fair enough? Sometimes it's like this right, when they conduct a survey, they only do it in Manila then they say it's the survey's result, but you cannot compare the situation of the Metropolis to the far-flung areas.

It is evident that top-to-bottom policymaking poses a crucial challenge for the government and policymakers, as this could also affect ESD implementation in the country.

Class Size

Several informants agree that a large number of students in one classroom taught by one teacher within an hour poses a major obstacle in implementing ESD in classrooms.

I1: The size of the classroom, as you can see, am I right? The size of the classroom is not suitable for one teacher alone. The ideal number of learners in a classroom is only twenty so that you can go around and have one by one with those who need assistance. That is our main problem here in the Philippines. So, the volume of learners in one classroom is already big. And with that, we could not assist them one by one. … But the problem is we lack teachers. That is our problem. So, we cannot do otherwise but expand the number of students in one classroom. That is the reason why there are 50 or there are 60, even 70 plus (students) in one classroom. It is because we lack teachers.

I3: Unlike in the public school, maybe it's due to the number of students that they are handling that they cannot be able to give time similarly. Maybe there are few, but since they are so many, they cannot have time to follow it up.

Evidently, this obstacle directly leads to overburdened teachers and teachers forced to teach subjects that are not their area of expertise.

> I2: So, the effect of that is the classrooms become too much crowded. The load of the teachers gets overloaded. Although it's not all, there are actually other small schools that are underloaded. But in bigger schools, there are overloads. Another effect of that is you are forced to teach a subject that is not your major. Some teachers teach a subject that is not their major. Whoever teaches values may be a math major or a math major who teaches science or English. And it could feel very inferior on your part if you are in a classroom, and you're teaching a subject that you do not know how to teach. So, the tendency is, you look down on yourself.

It is evident that the lack of teachers is an extremely important issue that needs to be resolved as it would heavily impact the implementation of ESD. This obstacle greatly impacts the quality of teaching and learning among teachers and students, which eventually affect the quality of the education system in the country.

Lack of Facilities, Resources, and Materials

The lack of facilities, resources, and materials is another challenge that is common in the interviews. Some informants mentioned the need for infrastructure and facilities when it comes to the quality implementation of ESD.

> I2: And then another one, which hinders this thing is the lack of facilities, lack of basic facilities. Classrooms are not enough. Here in [our school], as of now, we have 96 classes. And yet we only have a few working classrooms. …So again, what I'm trying to say is that we really need a lot of help, assistance, and resources, so to speak, to address the challenges, the learning gaps, for instance, or the learning poverty being experienced in the country.

> I5: Of course, budget. It has to be supported by infrastructure because we are a third-world country. …So, the hindering factor is how to transition, and how to transform your classrooms into a classroom of the future. You would need a budget.

In the context of ESD implementation, facilities, funding, resources, and quality materials are necessary for the success of this implementation.

Lack of Teachers' Knowledge of ESD

Some informants mentioned that the lack of teachers' knowledge of ESD or competencies in teaching ESD is another major challenge in its implementation in schools. They acknowledge that not all teachers are knowledgeable about the concepts of ESD nor trained to teach it.

> I1: So, we lack things, especially knowledge. We still have to learn more about it. Then, as I keep on saying, without learning, there would no sharing of what is learned.

> I6: Adequate number of teachers or even competitive teachers with enough pedagogical knowledge teaching ESD for instance, is still a challenge.

In the context of ESD, teachers' knowledge of ESD and competencies in teaching it must be addressed because this can pose a great challenge when implementing ESD.

Curriculum Congestion

Several informants agree that curriculum congestion poses to be a major obstacle in implementing ESD in classrooms.

> I2: On the other hand, we have comments wherein it's too much congested. We might be having another feedback from others that it should've been decongested.

> I6: I think one of the barriers or challenges that we are facing in the integration or implementation of ESD is the idea of curriculum congestion. I mean, a lot of government thrust or international thrust has been put into our curriculum. For instance, you are integrating human rights, you are integrating CSE or Comprehensive Sexuality Education. You are integrating, for instance, financial literacy. You are even forced to integrate human rights education, children's rights education, and so on. So, with all this government thrust being given to us, I think that's one of the problems, curriculum congestion.

This shows that curriculum overcrowding is a significant hindrance to implementing ESD in classrooms.

Lack of Continuity in the Curriculum

The lack of continuity when it comes to the learning areas and competencies in the curriculum is another challenge that is heavily emphasized by some informants in the interviews.

> I1: Our curriculum does not have a process. What do I mean when I say process, they don't have continuity. We have this kind of topic. The next day we have another topic. The next day we have another topic. But they are not connected.

> I4: It's like there is another DRRM subject and there is again another way of teaching or way of interpreting the terminologies in understanding DRRM, for instance. It's like this is the perspective of AP or the social studies teacher, and then when they get to Junior High School, the science teacher will handle it, so the interpretation of the science teacher is also different. So, then the way it will be explained is again different. I mean because it's broken. Because there's no continuity.

These informants also mentioned the negative effects of this obstacle which include the lack of mastery of students on basic competencies and skills. Accordingly, this problem eventually affects their ability to achieve higher learning competencies.

Lack of Monitoring and Evaluation

Another obstacle that one informant mentioned was the lack of monitoring and evaluation of various government programs in the education system.

> I6: I think one of the problems really in that implementation of this government thrust is the sustainability of evaluating all of this after quite some time. For instance, one of the basic or perennial problems of the Department of Education is that we implement much, but then we do not, I mean, our form of evaluation is quite poor, or should I say not that evident. And so, after five or ten years, we do not really measure or gauge the impact of this integrative component of education.

This shows that evaluating and monitoring the impact of ESD-related topics in the growth and learning development of learners as well as the processes and systems of such implementation and integration is necessary.

4.2.1. Concluding Remarks

In summary, ESD is not a recognized concept within the present Philippine education system. Like the Finnish secondary education system, ESD is not formally included as a distinct subject in secondary education, nor is the terminology explicitly addressed in the curriculum. Nevertheless, there are certain principles, values, topics, and themes pertinent to ESD, which are taught in

secondary classrooms. Therefore, while ESD is not explicitly stipulated, there exist adequate prospects for integrating the concept of ESD or its associated themes in the implementation of the curriculum. Most of the ESD-related topics in the current Philippine education system revolve around the environment, especially topics such as climate change, disasters, and indigenous communities. Additionally, the integration of ESD-related principles and themes in the curriculum mostly appears in subjects related to humanities, social studies, and technical-vocational education. There is also a strong emphasis on values education wherein values related to the principles of ESD are cultivated at a young age until the secondary education level.

The implementation of ESD in secondary schools is primarily contingent upon the decisions and conduct of teachers, succeeded by those of school principals or administrators, and ultimately by policymakers. It is worth noting that ESD is not compulsory, and teachers are presented with recommendations that they may choose to adhere to or disregard. Consequently, there is currently no national legislation mandating the integration of ESD in secondary education, with the system being rather adaptable and granting individual teachers and school administrators the discretion to determine the extent of ESD coverage within the classroom. However, it is important to note that ESD-related concepts such as climate change education (CCE) and DRRM are mandatory in the Philippine education system, and various school activities are mandated to be implemented by teachers in schools.

As a result, the promotion of ESD *itself* is quite limited and not widely established or known, however, CCE and DRRM are the closest ESD-related themes that are formally established in the country's education system. Moreover, numerous impediments and complexities hinder the efficacious execution of ESD schools. These challenges encompass difficulties in terms of attitudes and perspectives, top-to-bottom policymaking, excessive class sizes, curriculum congestion, lack of facilities, resources, and materials, lack of monitoring and evaluation, and lack of continuity in the curriculum. To achieve successful integration of ESD, it is crucial to prioritize addressing the fundamental necessities of schools, empowering teachers, and directing attention toward refining and augmenting the curriculum.

4.3. Comparative Analysis

According to Global Schools (2016), the implementation of policy is consistently the result of concessions made among various agendas, political participants, and confrontations to advance

interests, perspectives, and discourses. Additionally, the ideas of researchers regarding policy unavoidably impact their comprehension and interpretation of their analyses (Global School, 2016). Hence, it is important to remember that "every policy comparison is highly interpretive and never politically neutral or epistemologically objective. This is particularly true when the focus of the analysis is the implementation of a policy" (p. 206).

The implementation of ESD in secondary education systems plays a crucial role in promoting sustainable development in society. Finland and the Philippines are two countries that have taken steps to integrate ESD into their secondary education systems. These two countries share similarities and differences in terms of the modes and levels of ESD implementation, the factors affecting the implementation, and barriers to implementation (see Table 5). The following section of this paper will explore the similarities and differences in the above-mentioned themes.

Table 5

Implementation of ESD in the Finnish and Philippine Secondary Education System: Similarities and Differences

Themes	Current Implementation	Factors Affecting the Implementation	Challenges and Obstacles
Similarities	• Integration of ESD in the Curriculum • Cooperation of Stakeholders and Actors • Teaching • School-Based Initiatives and Programs	• Choice of Schools and Teachers	• Attitudes and Perspectives • Lack of Monitoring and Evaluation • Lack of Teachers' Knowledge of ESD
Differences	• Programs from NGOs	• Financial Resources	• Integrating ESD in School Subjects

	• Sustainable Development in the School Planning and School Facilities	• Autonomy of Schools and Teachers • Importance of Research • Attitudes and Competencies • Obligatory Nature of School Programs • Information, Education, and Communication (IEC) • Teachers' Education	• Teacher's Time • Top-to-Bottom Policymaking • Class Size • Lack of Facilities, Resources, and Materials • Curriculum Congestion • Lack of Continuity in the Curriculum

Theme 1: Similarities and Differences in the Current Implementation of ESD

Similarities

The implementation of ESD in secondary education systems varies across different countries. This section discusses the current implementation of ESD in Finland and the Philippines, highlighting their similarities and differences. The four similarities of the current implementation of ESD in the secondary education system of Finland and the Philippines indicate that despite their differences, they share common circumstances and approaches in integrating ESD into their education system. Firstly, in the two countries, there are concepts and principles of ESD and other related themes that are integrated into both countries' curricula. It is also evident that the term *Education for Sustainable Development* is not explicitly discussed nor utilized in the policies. Nevertheless, both countries recognize the importance of providing students with the knowledge and skills to understand and address sustainability challenges in various contexts.

Secondly, both countries have integrated ESD concepts and principles in cooperation and partnership among stakeholders and actors. In Finland, the government works with schools, NGOs, and international organizations to support ESD initiatives. In the Philippines, the Department of Education collaborates with its regional and division offices, local government units, and other government agencies to implement ESD programs. This shows that both countries recognize the importance of involving multiple stakeholders to achieve a holistic and sustainable approach to ESD. Moreover, both countries share the similarity of emphasizing the integration of SD principles in teaching school subjects, and teachers are expected to incorporate these principles into their daily work. These similarities show the importance of a collective effort in promoting sustainability in education, and how teachers are the bridge when implementing ESD in schools. Lastly, both Finland and the Philippines have school-based initiatives and programs that promote ESD in schools. In Finland, some schools have developed school programs and campaigns, such as waste management and the use of resources. In the Philippines, schools are encouraged to conduct environmental and greening programs, such as tree planting and waste segregation.

Differences

On the other hand, there are also differences between Finland and the Philippines in terms of the current implementation of ESD in the secondary education system. Firstly, while both countries integrate ESD into secondary school subjects and school-based initiatives and programs, Finland implements it more comprehensively by including it in school planning and school facilities. On the other hand, the level of implementation in the Philippines appears to be limited to school subjects and school-based initiatives and programs, as reported in the interviews. Lastly, another difference between the two countries is the presence of NGO programs related to ESD. In Finland, there are programs such as the Green Flag Program and Sustainable Schools, which in comparison, if such programs exist in the Philippines, they were not noted by the participants in these interviews. This suggests that there may be less involvement of non-governmental organizations in promoting ESD in the Philippines compared to Finland.

Theme 2: Similarities and Differences in the Factors Affecting the Implementation

Given the increasing importance of ESD globally, many countries, including Finland and the Philippines, have incorporated ESD concepts into their educational policies. Nevertheless, the factors affecting ESD implementation in these two countries differ significantly due to cultural,

socio-economic, and political contextual factors. This section will explore the similarities and differences in the factors affecting the implementation of ESD in the secondary education system of Finland and the Philippines. Only one key similarity and seven key differences will be examined to better understand how these factors contribute to the success or challenges of implementing ESD in each country.

Similarities

Both Finland and the Philippines share the similarity of not having a mandatory implementation of ESD in their secondary education system. This means that even though ESD-related concepts and themes are integrated into the curriculum, the implementation of ESD in school is still at the discretion of school administrators, and teachers. In terms of teaching, it is the choice of teachers on how deeply and how widely they want to integrate ESD concepts into their teaching, based on how they personally and/or professionally align their values with the concept of sustainable development. While both countries recognize the importance of ESD, it is not mandated, which affects the level of implementation and success in achieving sustainable development goals. This may also result in inconsistent and unequal integration of ESD in schools.

Differences

Despite this similarity, there are also several differences between Finland and the Philippines regarding the factors affecting the implementation of ESD in secondary education. There is a stark difference between Finland and the Philippines when it comes to the effect of financial resources on the implementation of ESD. In Finland, financial resources such as funding and grants are considered crucial and essential in supporting ESD implementation in schools. Conversely, in the Philippine context, financial resources are considered a challenge and obstacle, particularly in terms of securing resources to implement and sustain ESD programs and initiatives in schools. Additionally, Finland emphasizes the autonomy of schools and teachers. This ingrained autonomy of schools and teachers in the Finnish education system shows that it has implications in terms of the monitoring and evaluation of ESD-related programs and projects in schools and classrooms.

Moreover, in the Philippines, there is a strong emphasis on the importance of research due to the lack of quality and sufficient research in the country. Specifically, this is to improve the quality and quantity of research related to ESD, while this is not specifically mentioned in the Finnish context. In addition, Finland highlights the importance of the attitudes and competencies

of individuals toward sustainability, while in the Philippines, attitudes and perspectives appear to be a challenge in the implementation of ESD. Furthermore, the Philippines emphasizes the obligatory nature of some school programs related to ESD as a contributory factor in implementing ESD in schools, while in Finland, this was not mentioned. Lastly, the role of information, education, and communication is strongly emphasized in the Philippine context, while in Finland there is a strong emphasis on the integration of ESD in teacher's education.

Theme 3: Similarities and Differences in the Challenges and Obstacles to Implementation

The implementation of ESD in secondary education has been gaining attention and recognition globally as a critical component in addressing the sustainability challenges of the present and future. Both Finland and the Philippines have integrated ESD-related concepts and themes into their educational policies and curricula. However, a more comprehensive implementation of ESD faces various challenges and obstacles in different cultural, socio-economic, and political contexts. This section aims to examine and compare the similarities and differences in the challenges and obstacles that hinder the effective implementation of ESD in the secondary education systems of the two countries. There are three main similarities and seven main differences in the challenges and obstacles that affect the implementation of ESD in the two countries, which the following sections will explore in detail.

Similarities

In terms of the challenges and obstacles to the implementation of ESD in the secondary education systems of Finland and the Philippines, there are several similarities between the two countries. Firstly, both countries face challenges in terms of monitoring and evaluating the implementation of ESD-related initiatives. The lack of data on the effectiveness and impact of ESD programs makes it difficult to assess the extent of ESD integration in schools and its impact on students' learning outcomes. Secondly, in both Finland and the Philippines, there is a challenge related to the lack of teachers' knowledge of ESD. This presents an obstacle to the effective implementation of ESD programs and the incorporation of ESD-related concepts and themes in the curriculum. Thirdly, both countries face challenges related to the attitudes and perspectives of individuals and organizations toward sustainable development. In both Finland and the Philippines, there are still some individuals and organizations that do not fully understand the importance of ESD and its impact on sustainable development. This lack of understanding can

lead to resistance or reluctance to integrate ESD into the education system. Additionally, some individuals and organizations may not prioritize sustainability, seeing it as a secondary concern compared to other pressing issues. This can hinder the integration of ESD into the curriculum and lead to a lack of support for ESD initiatives.

Differences

There are also notable differences between Finland and the Philippines in terms of challenges and obstacles. Firstly, one challenge in Finland is the integration of ESD in school subjects and the lack of teachers' time. While Finland has integrated ESD into different school subjects, some teachers may find it difficult to incorporate all ESD topics and themes fully into their lessons due to the relatability of these topics in particular subjects, as well as the limited time of teachers. This can lead to a lack of in-depth understanding of sustainability issues and less effective implementation of ESD.

On the other hand, the Philippines faces a different set of challenges in implementing ESD. Top-to-bottom policymaking can hinder the implementation of ESD initiatives as it can lead to a lack of ownership and participation by stakeholders at the grassroots level. Additionally, excessive class size can make it difficult for teachers to provide individualized attention to students, leading to less effective implementation of ESD. Lack of facilities, resources, and materials can also limit the ability of teachers to provide quality sustainability education. Curriculum congestion, where there are too many subjects to be covered in a limited time, can make it challenging to incorporate ESD fully into the curriculum. Lastly, the lack of continuity in the curriculum can cause gaps in ESD education and lead to an incomplete understanding of sustainability issues. Overall, while Finland and the Philippines share some common challenges in implementing ESD, they face different sets of challenges that require specific solutions tailored to their respective contexts.

5. Discussion

There is limited research on the implementation of ESD at the secondary education level, especially in countries belonging to High-Income Countries (HICs) and Low- and Middle-Income Countries (LMICs). In order to fill this research gap, this study aimed to investigate and explore how ESD is implemented in the secondary education system of Finland and the Philippines, with a focus on educators' perspectives. In this chapter, I will discuss my positionality in this study as

the researcher wherein I explain my motivations behind this study. This is followed by a thorough analysis of the summary of the research findings and their implications. Moreover, I will share my conclusions and offer critical reflections on the findings and implications of the study, and finally, I will conclude this chapter by offering practical recommendations for future research in this domain.

5.1. Researcher's Positionality

Before I present the summary and implications of my findings, and in the spirit of self-reflection, I acknowledge my standpoint as an educated and self-proclaimed global citizen who is born and raised in the Philippines. As in all qualitative research, it is helpful to understand my position in this thesis as the researcher and, therefore, my lens on the data. Various reasons motivated me to investigate this topic of ESD, and why I decided to adopt the perspective of a comparative analysis between the country where I'm currently based (Finland) and the country where I was raised (the Philippines). One of my biggest motivations is the fact that I am personally an advocate of sustainable development and have been since I was a teenager living in the Philippines. I do believe that sustainable development is the future. I also acknowledge that education is key to achieving this. This is not to say, however, that the current global framework on ESD and Sustainable Development is perfect and without flaws. As with other scholars mentioned in the Literature Review of this study, I also recognize that there are a lot of impediments and paradoxes within the current discourses of ESD that make it more complex and may seem impossible to implement and achieve.

Moreover, I decided to conduct a comparative study between Finland and the Philippines due to my personal and deep connection between these two countries. Having lived in both countries and experienced their educational systems, I believe that I have, even at the surface level, a good understanding of their education systems and their contexts. This is what motivated me to further understand how ESD is integrated and implemented in these education systems, especially between countries that have different economic, cultural, political, and social contexts. Furthermore, I also wanted to understand how these differences in context affect the ways we understand ESD and what the findings entail for countries belonging to HICs and LMICs.

More importantly, it is crucial to state that, as someone born and raised in the Philippines, I understand the tendencies of LMICs to view various global concepts, such as ESD, from a

Western-centric perspective. Having acknowledged this, I tried to view my data and analyze my results in a way that does not reflect the way Western countries idealize ESD, but instead speaks to the local contexts of the two countries involved. This dovetails with the fact that this research does not aim to evaluate and compare "which country does it [ESD] better". Although I acknowledge that one country is more economically advanced than the other, this does not devalue the fact that both countries, regardless of economic advancement, have strengths and weaknesses that reflect their local contexts. Hence, this study is conducted – and must be treated – to provide insights into what we can learn from one setting to another, what we can learn from each other, and what these learnings entail on the way we can implement ESD better in contexts that have more resources and contexts with fewer resources. Lastly, in terms of what my findings entail to policymaking and policymakers, I do believe that comparative studies, such as this, must not be treated as an excuse to reinforce and justify the traditional political approach of "educational borrowing and lending" (Steiner-Khamsi & Waldow, 2012). Instead, I hope that this comparative study ignites a dialogue on a proactive educational reflection and analysis of one's system that challenges and leads policymakers to action based on the realities of its local contexts rather than the idealization of other countries. I acknowledge that these convictions somehow influence the way I interpreted my results and conclusion.

5.2. Summary of Findings

Based on the findings of this study, three key topics emerged from the thematic analysis of the interviews performed in each country: (1) current ESD implementation, (2) factors affecting ESD implementation, and (3) challenges and barriers impeding ESD implementation. There are 31 sub-themes defined within each theme. These sub-themes show that there are similarities and differences between the two countries in terms of implementation. One of the major findings of the study is that in both Finland and the Philippines, the concept of ESD and its related themes are integrated into the curricula. This underscores the importance of the curricula as a key medium for implementing ESD in schools.

Additionally, in both countries, the implementation of ESD is reflected through the cooperation of stakeholders and actors, wherein this cooperation is mostly related to achieving some objectives related to ESD implementation. Moreover, ESD is also implemented through the teaching of school subjects and school-based initiatives and programs. Interestingly, in the

Philippines, there is a strong emphasis on teaching and programs related to Disaster Risk Reduction and Management, Climate Change Education, and Indigenous Knowledge Systems and Practices. The biggest differences in terms of the current implementation of ESD in the countries is that, in Finland, there is a strong implementation of programs from NGOs and there is emphasis by some practitioners that the concept of Sustainable Development is embodied in the school planning and school facilities.

The study also found that the implementation of ESD in both countries is solely at the discretion of schools and teachers, which presents a challenge to its sustainability. Other factors that affect the implementation of ESD include financial resources, the autonomy of schools and teachers, attitudes and competencies, and teachers' education (in Finland) and the importance of research, information, education, and communication, and the obligatory nature of school programs (in the Philippines). The study also identified similarities and differences in the challenges and obstacles hindering the implementation of ESD. Some of the similarities include attitudes and perspectives, lack of monitoring and evaluation, and lack of teachers' knowledge of ESD in both countries. On the contrary, some of the differences in the Finnish context include the challenge of integrating ESD in school subjects and teachers' time. Whereas, in the Philippine context, top-to-bottom policymaking, class size, lack of facilities, resources, and materials, curriculum congestion, and lack of continuity in the curriculum are some of the challenges mentioned by the informants. Overall, this thesis highlights the importance of ESD implementation in schools and identifies key factors and challenges that affect its success. The findings provide insights for policymakers, educators, and other stakeholders to improve the implementation of ESD in schools.

5.3. Implications

The various themes identified from the results data prove the complexity surrounding ESD and its implementation. This is because even though ESD is implemented in both countries in various ways, factors and challenges still directly affect this implementation. For instance, in theory, ESD and its other-related concepts are integrated into the curriculum. However, in practice, the implementation of ESD in schools is still a choice that is made by teachers and school administrators, depending on how they personally and/or professionally align themselves with the concept of sustainable development. This particularly highlights that there are conflicting realities

in terms of the implementation of ESD in the two countries, which also captures the complexity of ESD as discussed in the literature review of this thesis. Moreover, these themes also illustrate the interconnectedness and interdependencies of the complexities of ESD. The following sections will explore and identify the correlations, patterns, and relationships among the specific sub-themes to further examine this.

The relationship of the themes in the data especially the sub-themes is extremely significant and relevant to discuss as they portray how these findings can relate to previous research and theories discussed in the literature review chapter of this study. One of the significant correlations we can see from the results is that the integration of ESD in the curricula and in teaching results in challenges such as integrating ESD in school subjects, wherein it's easier to integrate the concepts of sustainability in some subjects, while it's harder in others. This is rooted in the fact that one of the complexities of ESD as a concept is due to its conceptual perceptions and terminologies that vastly vary. Indeed, ESD manifests itself in different forms around the globe (McKeown, 2002). As Buckler & Creech (2014) claim, some foci of ESD include climate change, disaster resilience, biodiversity, poverty alleviation, sustainable consumption, etc. The multidisciplinary nature of ESD not only perpetuates the confusion and the cumbersomeness of ESD but also makes it challenging to integrate all these foci in some school subjects. As one puts it, "I have a hard time addressing the question of global poverty, for instance, in my subject, because it's not a good context, whereas social sciences might be a very good context for those issues. Whereas it might not address the issues of using materials and natural resources wisely". Indeed, Sund & Gericke (2020) states that secondary education teachers have different perspectives and interpretations of ESD, predominantly due to their different fields of expertise. Moreover, this integration of ESD in the curricula and teaching also results in the lack of teacher's time and curriculum congestion. Notably, this confirms what ESD scholars state that ESD must not merely be viewed as an "add-on" (Buckler & Creech, 2014b; Pearson & Degotardi, 2009) to an already "overcrowded curriculum" (Sterling, 2000) or educational practices. Based on these contradictory views between what the findings show and what ESD scholars claim, I argue that the two countries still view ESD, to some extent, as an "add-on" to teaching and school subjects. This, of course, will likely result in curriculum congestion and strain on teachers' teaching time.

Another correlation among the data is that the integration of ESD especially in teaching is highly dependent on the choice of schools and teachers, the teachers' education, and their attitudes and competencies in teaching topics related to ESD. This supports what Taylor et al. (2019) stated that two of the barriers to ESD in secondary education refer to teachers' competence and/or commitment to teaching it, and teachers' attitudes about the environment and ESD. Furthermore, the integration of ESD in teaching is also affected by the challenge of the lack of teachers' knowledge of ESD. Indeed, as Hungerford (2009) claims, "We are asking teachers to do things they are not trained to do, do not have time to do, or have never done" (p. 2). This dovetails with what Anyolo (2015) argues that the lack of training, inadequate time, and inappropriate teaching and learning resources prevent teachers from using participatory methods which could catalyze self-learning and enhance students' participation. For countries with fewer resources and facilities and excessive class sizes such as the Philippines, this could diminish the quality of teaching ESD in classrooms. This is despite ESD and its other-related concepts being embedded in the curricula and implemented through teaching.

However, it is not only the quality of teaching ESD that gets affected if there is a lack of facilities and resources. The data also show that school-based initiatives and programs highly depend on financial resources. This might entail that for countries with fewer resources such as the Philippines, wherein there is a lack of facilities, resources, and materials, there is a high chance that the implementation of school-based initiatives and programs related to ESD is lesser in comparison to countries with more resources. Overall, the correlations mentioned above capture what Taylor et al. (2019) claim that there are logistical barriers to ESD which indicate the lack of resources, funding, and teachers' lack of preparation time.

There is also another correlation present within the data, wherein the cooperation of stakeholders and actors towards ESD is dependent on the stakeholders' and actors' attitudes and perspectives especially when it comes to Sustainable Development. Subsequently, the attitudes and perspectives of individuals are also influenced by information, education, and communication (IEC), especially on discourses surrounding ESD. As one informant puts it, "We will get different kinds of responses from the society around us. Some people say, 'No, this is just a bluff, the whole thing'. And some people say that 'Yes, we need to work on this'". This dependence of ESD on the attitudes and perspectives of individuals toward sustainable development proves that there are

individual processes involved in the implementation of ESD, and how these individual processes are crucial to the realization of ESD. In the context of theories surrounding ESD, however, some scholars claim that ESD must go beyond behavioral and attitude change (Arbuthnott, 2009; Hanley, 2005). Most especially, ESD programs should pay special attention to the contextual shifts and the creation of personal management plans as mediating factors in the attitude-behavior relationship (Arbuthnott, 2009). Again, this contradiction between the data results and the theories shows that the realities of ESD in practice are far from the theorized concept of ESD expressed by scholars.

Aside from these correlations, the sub-themes also show that some unique data and relationships are mainly due to the local contexts of each country. This may be the country's political and/or educational system, as well as its cultural and societal landscape. For instance, the autonomy of schools and teachers in Finland correlates with the lack of monitoring and evaluation of ESD-related programs in schools. As one informant states, "We don't have the tradition of school inspections in Finland. So, whether it's [ESD] put into practice or not that I can't say." This captures the reality that the lack of monitoring and evaluation (M&E) mechanisms for ESD programs and practices is inherently linked to the autonomy of schools and teachers which is deeply ingrained in the Finnish education system. Despite this, both countries have a lack of M&E mechanisms related to ESD. Again, I argue that this is also rooted in the fact that the implementation of ESD is at the discretion of schools and teachers. This shows the irregularity of ESD implementation in both countries involved in this study.

Another aspect of the data results that captures the differences between the two countries' local contexts is the sub-themes that are specifically found only in a certain country. For instance, programs from NGOs geared specifically toward the implementation of ESD in schools, as well as the embodiment of sustainable development in school planning and school facilities are more emphasized and practiced in the Finnish context. It can be argued, of course, that this is connected to how the country has more resources in comparison to the Philippines. Whereas, in the Philippine context, the concept of Disaster Risk Reduction Management, Climate Change Education, and Indigenous Knowledge Systems and Practices are highly emphasized. Moreover, some factors and challenges are specifically highly applicable to contexts that have fewer resources. For example, the data from the Philippine context proves that there is a high need for research, more bottom-up

policymaking, and more facilities, resources, and materials. Lastly, the obligatory nature of some school programs related to ESD and the lack of continuity in the curriculum are other factors that are present only in the Philippines. This shows how the two countries differ when it comes to their educational and political systems, as well as their social and local contexts. As stressed by McKeown (2002), ESD manifests itself in different forms around the globe, and policies and frameworks related to ESD significantly vary from country to country due to the salience of different sustainability challenges in each region (UNESCO, 2014). This also supports what Hanley (2005) highlighted that ESD must be "adaptable to local contexts" to foster community participation in its implementation and must address cultural specificity (Kopnina & Meijers, 2014).

Overall, the results show that there are contradictions between how ESD is *currently* implemented in practice in the two countries and how ESD *should* be implemented according to ESD research and theories. This is mainly because ESD is still being viewed as an "add-on" to an already crowded educational system. Aside from these contradictions, the results also provide practical perspectives that support existing ESD theories which further strengthen the validity of these research and theories. Building on these, the results have implications for how it must be implemented in practice. Therefore, this study will present various recommendations that contribute to ESD discourse and its implications for countries with more resources and fewer resources. As discussed in the literature review of this study, Taylor et al. (2019) argue that there are four categorical barriers to implementing Education for Sustainability in secondary education; namely: conceptual, educational, logistical, and attitudinal. This study presents and discusses the recommendations based on these four categories, which are organized into similar dimensions.

First, the conceptual barriers, according to Ham & Sewing (1988) refer to the lack of theoretical consensus and misconceptions about the concept of Education for Sustainability. Based on the results of this study, I recommend that ESD must not be viewed as an "add-on" (Buckler & Creech, 2014b; Pearson & Degotardi, 2009) to an already "overcrowded curriculum" (Sterling, 2000) or the educational system. Instead, it must be utilized as a frame of mind for a complete transformation of the educational system (Corcoran & Wals, 2006) that entails a reorientation of education systems and structures (Buckler & Creech, 2014b), and a reframing of teaching and learning knowledge, skills, perspectives, and values (McKeown, 2002). Although this is easier

said than done, one possible approach to achieve this is through the glocalization of education. As the findings of this study show, local contexts play a crucial role in tackling global issues related to sustainable development through education. This is related to the discussion presented in the literature review wherein UNESCO (2014) claims that each country faces different sustainability issues. Hence, viewing ESD through the glocalization of education would enable countries, specifically education authorities and practitioners to tackle global issues and concepts through local epistemologies, methods, perspectives, and local mindsets.

Second, the educational aspect refers to teachers' competence and/or commitment to teaching ESD (Taylor et al., 2019). The implementation of ESD in secondary education in Finland and the Philippines, and other countries with more and few resources requires a comprehensive approach. My recommendations include re-aligning educational programs with ESD to foster governments' attitudes and perspectives toward sustainable development. Additionally, implementing a whole-school approach based on the whole-school transformation theory (Gericke & Torbjörnsson, 2022; Mathie, 2019; Mogren, 2019) which encapsulates teaching and school-based initiatives and programs can foster a school culture toward sustainable development. The development of monitoring and evaluation mechanisms is also essential for tracking progress and identifying areas that need improvement. Moreover, school administrators and teachers should receive education and capacity training on ESD to foster their attitudes and perspectives toward sustainable development. Finally, transforming the curriculum using ESD as a frame of mind can help instill the principles of sustainable development in students, preparing them to be environmentally responsible citizens. These are some possible recommendations for Finland and the Philippines which can effectively promote sustainable development in their secondary education systems.

Third, the logistical aspect indicates the lack of resources, funding, and teachers' lack of preparation time (Taylor et al., 2019). The findings show that the implementation of ESD in secondary education in Finland and the Philippines faces logistical challenges, such as a lack of resources, funding, and teachers' lack of preparation time. To address these challenges, both countries must first provide the basic necessities of schools, especially in countries that have fewer resources. This entails providing facilities, resources, and materials for schools, as well as funding ESD by supporting sustainable development initiatives. Fostering sustainability in school planning

and facilities can also help in promoting ESD in secondary education. To create learning environments that are conducive to sustainability, schools can adopt eco-friendlier designs and construction practices. Moreover, civil society organizations can play a vital role in ESD implementation by partnering with schools and providing additional resources and expertise. Public-private partnerships and collaboration with tertiary education institutions (TEIs) can also be useful in promoting ESD. Such partnerships can enhance program efficiency and transparency, improve the quality and relevance of education services, and conduct interdisciplinary research to improve ESD in school curricula. Strengthening cooperation between institutions and stakeholders in the education sector and community and enhancing nationwide multi-stakeholder initiatives can also help to overcome logistical challenges in ESD implementation.

Lastly, the attitudinal aspect implies teachers' and individuals' attitudes about the environment and ESD (Taylor et al., 2019). Regarding this aspect, several measures should be taken. This includes continual advocacy efforts to raise awareness of the importance of ESD through Information, Education, and Communication (IEC) mechanisms at the government, education sector, school, and community levels. Moreover, as discussed in the literature review and in the earlier sections of this chapter, to achieve more significant and lasting impacts, ESD must go beyond mere behavioral, and attitude change as theorized by Arbuthnott (2009). Hanley (2005) also suggested using eco-semiotics to change the way we perceive ESD. There is also a need to strengthen research quality and quantity in the country, particularly in countries with limited resources. Finally, cross-curricular teaching should be promoted in schools to utilize the different perspectives of teachers in teaching ESD and provide a more comprehensive approach to sustainable development, as suggested by Sund & Gericke (2020).

5.4. Conclusions and Reflections

This research aimed to find out how Education for Sustainable Development (ESD) is implemented in Finland and the Philippines based on educators' perspectives, including the factors that affect this implementation as well as the challenges and obstacles that hinder implementation. Throughout my interviews with 11 educational policymakers and practitioners in the two countries, I found that there were similarities and differences in the two countries in terms of their (1) current implementation of ESD, (2) factors affecting the implementation, and (3) challenges and obstacles in the implementation. In the discussions, I expounded upon the contradictions that

exist between how ESD is *currently* implemented in practice in the two countries and how ESD *should* be implemented according to ESD research and theories. In addition to highlighting these contradictions, I also elucidated how the findings offer practical viewpoints that endorse the prevailing ESD theories.

Moreover, I also discussed several implications for application when implementing ESD in the secondary education system, targeted specifically for policymakers and practitioners. Based on the eleven interviews that were held, the realities of successfully achieving the implementation of ESD in the secondary education system of both countries involved in the study are still far from the dream. Simply put, we haven't achieved much in ESD, both theoretically and empirically. Some reasons might be due to the lack of research on evidence-based educational policies that could help contribute to educational reforms. Other possible reasons rely on the low levels of economic security and basic education in countries with fewer resources, wherein basic school necessities remain a major impediment to a full transition of educational systems toward ESD.

This poses the question: are we ready for a complete shift in our existing educational paradigm? Are we ready for a comprehensive transformation of our educational systems, considering our finances, resources, institutions, and our societal systems? Indeed, studies have shown that ESD requires changes in different aspects. It requires changes in our concepts, our education systems, our logistics, and our attitudes. All the complexity of these dimensions embedded into one is what we call *Education for Sustainable Development*. Thus, going back to the question, are we ready for a radical change in our institutions, our policies, our systems, our societies, and even in ourselves? I'm not certain, for sure. Although I am confident about one thing, and that is – we still have a long way to go.

However, this does not diminish the efforts and initiatives of various stakeholders and actors to implement ESD in the two countries. It is important to bear in mind that teachers, school administrators, and policymakers are working towards implementing various ESD programs and partnerships in schools. Hence, throughout my research journey, while it was disheartening to understand the realities of ESD in practice, I have also grown in admiration and respect for Finnish and Filipino practitioners and policymakers for their commitment and contribution to making ESD a reality. If there is one significant takeaway I've learned from this journey, that is, actors from each country acknowledge the importance of working toward global issues, and they work

diligently toward these issues based on the realities of their local contexts and circumstances. To me, this is a commendable task in and of itself.

5.5. Recommendations for Future Research

Since this study is merely focused on educators' perspectives on the implementation of ESD, it is therefore highly recommended to study how ESD is implemented in the classrooms through studies that include observations and/or case studies. These studies are extremely beneficial in understanding the realities of teachers on the ground and how ESD takes place at the grassroots level. Researchers could also take into consideration nationwide research to understand whether there are differences and gaps between various regions or cities of each country. This could help policymakers and practitioners assess whether there is an equal distribution of opportunities for schools and actors working toward ESD, especially on things related to funding and financial resources. Lastly, longitudinal and quantitative studies could also support the monitoring and evaluation mechanisms of countries. These kinds of data could provide statistics and numbers, and detect developments or changes related to the implementation of ESD.

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Appendix A

Interview Questions

1. What is your job title?

   Objective: Icebreaker question (not to use in case you already know the respondent).
2. Could you tell me about your involvement in Education for Sustainable Development (ESD)?
3. Could you tell me about your experience with ESD?

   Suggestion for a follow-up question: What ESD topics do you know?
4. Having knowledge of the secondary education curriculum, do you believe it is adequate to meet the challenges of sustainable development in the country?
5. Could you please tell me about the introduction of ESD in secondary school?

   The goal of the interview is to collect a story about the process of integrating ESD into secondary school.

   Possible follow-up questions include:

   - What government institutions are involved and how are they involved in the process?
   - What other organizations have roles in integrating ESD in the country and what roles do they play?
   - Who are the ESD promoters involved?
6. Given the current normative framework, in what ways is ESD present in secondary education today?

   Suggestions for follow-up questions:

   - What are the relationships between all the various actors who promote ESD-related topics in secondary schools?
7. What are the current constraints and barriers to integrating ESD in secondary education? What are the possible ways to resolve them?

   Suggestions for additional questions:

   - What factors create barriers to introducing ESD in secondary education curriculum?
8. Which of the following topics (climate change, human rights, environmental degradation, biodiversity loss, democracy and governance, poverty reduction, migration and

citizenship, peace, justice, ethical standards, global and local responsibility, gender equality, corporate social responsibility, sustainable use of natural resources, and biodiversity) are best suited to the definition of ESD?

9. What are the normative and prescriptive instruments that have the most effect – both positively and negatively - on the teaching of ESD in formal secondary education?
10. Do you have anything to add to the conversation that hasn't already been mentioned?