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New Wine Needs to Be Put Into New Bottles: Legitimizing Education for Sustainability in South Korea’s Higher Education Institutions

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Abstract

The aim of the paper is to critically examine the practices of teaching and learning for the Sustainable Development Goals (SDGs) in the context of higher education institutions (HEIs) in South Korea (Korea). With the use of a case study, this paper offers a close examination of the practices carried out at Seoul National University and Kyung Hee University in Korea, focusing on how the SDGs are embedded in teaching and learning for sustainable development and identifying barriers and challenges in the process. A few specific initiatives and curriculum developments to meet the SDGs have been identified, but their rhetorical visions and practices of teaching and learning contradict, resulting in little actual transformation. This study reveals the gap between the rhetoric and the reality of teaching and learning for the SDGs from the perspective of transformative learning and offers policy suggestions to provide a well-rooted practice of educating the SDGs in Korean HEIs.

Keywords: higher education institutions, Korean HEIs, SDGs, sustainability, teaching and learning

Introduction

The year 2015 was momentous as it marked the completion of a number of significant global development agendas such as the eight United Nations Millennium Development Goals (MDGs), which were launched in 2001 and continued until 2015 (Nhamo & Mjimba, 2020). In the post-2015 era, the Sustainable Development Goals (hereinafter SDGs) were established as the new, universal set of goals and indicators to “end poverty in all its forms” (UN, 2015, p. 45)” and “balance the three dimensions of sustainable development: the social, economic and environmental” (UN, 2015, p. 1). As the SDG agenda involves a wide-ranging set of intermingled social, economic, and environmental challenges across the globe, various actors around the world are called to take a long-term action to bring about change (UN SDSN, 2015). Among various actors, higher education institutions (hereinafter HEIs) are recognized as critical drivers, influencers, and agents of change for societal transformation at the global, national, and local level

(UNESCO, 2015; Kioupi & Voulvoulis, 2019; Leal Filho et al., 2019). HEIs also occupy unique, neutral and trusted positions in societies, and are recognized as capable of promoting the SDGs by facilitating a dialogue and creating a space for collaboration among actors (Vilalta et al., 2018).

Accordingly, each institution recognizes the need to respond to the call for sustainable development and to reorient their initiatives towards social, economic, and environmental responsibility and sustainability. Within this context, in 2019 the Times Higher Education (THE) started assessing universities to capture their impact on society based on their research, outreach, and stewardship in delivering the UN SDGs through its Impact Rankings. The top-ranking universities were identified from New Zealand, Australia, Canada, and a few from the Europe and the United States. These institutions are known to have longer histories of acknowledging diversity and contributing to equity and inclusion due to their historical and multicultural contexts. Among them, the University of Auckland, whose mission is not only to excel in teaching, learning, and research, but also to commit to serve its local, national, and international communities, was ranked first for two consecutive years. In the following years, the University of Manchester and Western Sydney University were at the top. In the case of South Korea, seven universities were listed in the chart, while two of them were among the top 30 institutions in 2019. Kyung Hee University was ranked 27th while Sungkyunkwan University was ranked 30th. However, when more SDG-related indicators and 218 universities from 9 more countries were added for assessment in the following year, most Korean universities could not make into the competition, leaving much room for improvements in the way Korean universities promote sustainable development.

HEIs have recently started to adequately align with the SDGs. However, close examination of their attempts to incorporate the SDGs into specific approaches and practices shows that there is a significant need to enhance efforts of HEIs toward sustainability. Currently, neither research nor policy papers at the government level provide detailed proposals for HEIs to implement programs for the SDGs. Thus, considering the significant educational role of HEIs, more attention must be placed for HEIs to embed SDGs especially into their teaching and learning. Most importantly, as the ultimate aim of teaching and learning for sustainability is to transform learners to think and develop adequate knowledge skills to contribute to sustainable development, higher education for the SDGs should be promoted from the perspective of transformative learning. Thereby, this paper takes a closer look at the approaches and practices of teaching and learning for sustainability by examining what has been done in two Korean HEIs and what needs to be accomplished for further improvements.

HEIs for Sustainable Development and the Context of South Korea

University education is known to be one of the most crucial bedrocks that contributes to sustainable development for all individuals and societies (SDSN Australia/Pacific, 2017). HEIs function to nurture and shape future citizens and to deliver knowledge and innovation through their teaching and learning activities, research, community services, governance and leadership. The importance of education is also explicitly reflected in SDG 4 – to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.” Moreover, not only do the targets within SDG 4 call

upon actions of HEIs, but many of the SDGs are also closely interlinked (SDSN Australia/Pacific, 2017). It should be noted that many studies (SDSN Australia/Pacific, 2017; Aleixo et al., 2018; Kioupi & Voulvoulis, 2019; Pham, 2021; Leicht et al., 2018; Nhamo & Mjimba, 2020; SDSN, 2020) maintain that quality education aligned with the SDGs is significant for sustainable development at every level. In this context, sustainability has become critical for HEIs. HEIs have been experiencing an increasing need to redefine their activities, strategies, and organizations (Ferrer-Balas et al., 2008; Ferrer-Balas et al., 2009; Barth & Michelsen, 2013; Beynaghi et al., 2016). In response to the call for sustainability in the latest international agreements (SDGs) as well as to actual global environmental and social challenges, HEIs have started to implement the SDGs in various sectors and at various levels (Nhamo & Mjimba, 2020).

A growing number of studies (Ferrer-Balas et al., 2008; Ferrer-Balas et al., 2009; Stephens & Graham, 2010; Hugé et al., 2016) explore how HEIs are shifting towards sustainability. Accordingly, the initiatives and activities for transformation of HEIs can be divided into different areas and practices of sustainability. These efforts include social/cultural, educational, institutional, economic, political, and environmental practices that take place in the areas of education, research, campus operations, community engagement/outreach, institutional framework, on-campus experiences, and assessment and reporting (Leal Filho et al., 2015; Lozano et al., 2015; Aleixo et al., 2018). HEIs establish coordinated bodies and projects, take actions for initiatives such as green campus, develop special courses on sustainability, enhance interdisciplinarity for learning, establish partnerships, and support or offer collaboration within and beyond the institutions as a way of transforming themselves towards sustainability (Ferrer-Balas et al., 2008; Findler et al., 2019; Nhamo & Mjimba, 2020; SDSN, 2020). In this respect, a paradigm shift is required for HEIs not only to transform their institutional responsibility but also to reorient their curriculum, pedagogies, learning environments, research, and community services to align with the sustainable development agenda.

Among various approaches to the SDGs, teaching and learning are the key drivers for SDG implementation and achievement at the institutional level. The critical role of teaching and learning for sustainable development is attributed to quality education, which leads to improved development outcomes for individuals, communities, and countries (SDSN Australia/Pacific, 2017; UNESCO, 2017). To achieve such expected outcomes of the SDGs for, in, and by education, HEIs have to address wide-reaching issues and challenges, including complex interlinkages, uncertainty, and conflicting values when considering the scope of the SDGs. Teaching and learning for the SDGs can be enhanced when learners are able to think through such real-life complexities, engage in deep reflection, develop their worldviews and become sensitive to values along with other important skills and competences (Leal Filho et al., 2019). Despite its complexity in delivering sustainability in education, previous research also identifies that teachers are crucial in promoting teaching and teaching for sustainable development and, in this sense, teacher training becomes another key element of education to be more responsive to the sustainability call (Brandisauskiene et al., 2020; Koskela & Karkkainen, 2021; UNESCO, 2016). However, while studies on HEIs and sustainable development are vast and extensive, little research has been conducted with particular focus on teaching and learning. Furthermore, majority of the studies limit their discussion on promoting the SDGs and outlining numerous activities aligned with the agenda without providing

a comprehensive evidence-based assessment or model of teaching and learning for sustainable development. Thus, it can be stated that there is a significant lack of studies that look into educational practices such as quality, curricular content, and effectiveness in the promotion of the SDGs (Kioupi & Voulvoulis, 2019).

Furthermore, there are various challenges and constraints that make the implementation of sustainable development in HEIs harder despite their attempts to reshape themselves toward the SDG agenda. Accordingly, many studies (Ferrer-Balas et al., 2008; Ferrer-Balas et al., 2009; Stephens & Graham, 2010; Beynaghi et al., 2016; Albareda-Tiana et al., 2018; Aleixo et al., 2018; Kioupi & Voulvoulis, 2019) elaborate on the existing barriers for sustainable development in HEIs. Notably, Soini et al. (2018) summarize these internal and external challenges as scientific, organizational, supportive, conceptual, and ideological. These constraints range from the lack of a paradigm shift and a structural change, transformation in organizational culture and communication practices, or a system that supports sustainability both by rewards and funding, as well as the vagueness of the concept of sustainability itself, which may have varying and conflicting aims and tasks. In other words, there is a lack of government support, funding, and overall institutional management, plus resistance from traditional disciplines and the hierarchical structure of university, ideological and epistemological differences and struggles, and just a lack of understanding. When it comes to a limited understanding of sustainable education, previous studies elaborate on narrow and shallow perception of sustainable development of teachers, including teacher educators due to its complexity (Goller & Rieckmann, 2022; Koskela & Karkkainen, 2021).

In these circumstances, it is worth examining the teaching and learning for SDGs in the context of South Korean HEIs. Ever since the recognition spread on the need for HEIs to fit into the post-industrialized and knowledge-based society, Korea has gone through notable education reforms to internationalize HEIs (Jeon et al., in press). However, the government's strong drive for internationalization of higher education, which has been critically analyzed to be based on neoliberal principles, has resulted in diversified responses from HEIs while raising considerable questions. Especially the government's focus on funding allocation based on quantitative accomplishments to promote world-leading universities has become both the aim and the tool at the cost of diversity and quality (Shin & Harman, 2009; Byun & Kim, 2011; Palmer & Cho, 2012). Regrettably, in the process of embracing sustainable development, the strongest policy driver of HEIs is yet presumably the internationalization with the fundamental goals to build global competitiveness, which will be articulated further in the study.

In this context, there are a few studies particularly dealing with sustainable development and higher education in Korea. Among a small number of related studies, one of the recently published policy reports by KEDI (Korean Educational Development Institute), a national institute of higher education policy research, is worth looking at more closely. According to the report, the Korean government promotes the SDGs in higher education by highlighting the importance of increasing the number of international students and diversifying curricula, strengthening the quality assurance system, and applying the means of information and communications technology (ITC) to expand access to quality education, which all relate more to the aims and approaches of internationalization rather than the SDGs (Ahn, 2019). In addition to the excessive attention to internationalization, previous literature on SDGs, in general, focused on official

development assistance (ODA) for other developing countries. Furthermore, the Korean government established its own K-SDGs in 2018 as part of an effort to meet the SDGs, which mainly focused on social, economic, and environmental issues related to poverty and inequality in Korea. Regarding higher education, the K-SDGs only discuss enhancing lifelong and vocational skills development and training opportunities that respond to market and industry demands (MOE, 2019). Apart from these studies and policy papers, there are other on-going activities in various scopes and at various levels to promote sustainable development, such as the UN Academic Impact (UNAI) ASPIRE Korea program, which conducted 28 different activities in 2019 in order to raise awareness of the SDGs (UNAI, 2019). Nevertheless, there is still a lack of coherent and in-depth consideration of the issue. Thereby, this study aims to fill the gap in the literature by looking into specific educational practices to promote sustainable development in the context of Korea. The intention is to bring discussions on the table to raise awareness of education for the SDGs in order to enhance the quality of curricular content and pedagogy and identify obstacles and barriers to sustainability in HEIs.

Two Cases of Teaching and Learning for the SDGs in South Korean Universities Green Leadership Program, Seoul National University

Institutional Aim is to Foster “Global Convergence Talents”

Seoul National University (hereinafter SNU) founded in 1946 is recognized as the most prestigious university in the country. According to the 2021 Times Higher Education (THE) World University Rankings charts, SNU is 9th in Asia and 60th in the world, scoring highest on both charts among Korean universities. However, SNU was not included in the Impact Rankings. Based on close examination of the university’s operations and programs, SNU does not seem to have meticulously planned and implemented its core strategies and activities considering the SDGs. Neither does SNU have a master plan coordinated for the organization apart from its vision statements. Nevertheless, the term “sustainability” is mentioned directly as one of the key areas to be promoted. There had also been a few attempts to apply teaching and learning approaches aligned with the SDGs according to SNU vision statement announced since the inauguration of the new president in 2019.

The four main visions of SNU are as follows: –) to foster global convergence talent through interdisciplinary approaches; –) to build an innovative knowledge ecosystem that supports future-oriented academic fields; –) to create knowledge-based social values through various courses and activities, and –) to establish a foundation for sustainable and innovative university development (SNU, n.d.). Based on these visions, which provide an overall view of the institution’s approaches and strategies for its education, SNU promotes interdisciplinary and student-led courses; research capability for global peace and progress; social values of service, global citizenship, and human rights; and innovative and eco-friendly learning environment. Thus, it is hard to deny that its visions appear to align with the SDGs especially in terms of teaching and learning approaches for sustainable development. Albeit a simple slogan, SNU officially promotes education for sustainable development as part of their mission by providing learning opportunities to develop not only professional knowledge and skills but also social values based on rights and responsibilities.

Promoting Transformative Learning Based on Social Responsibility and Excellence

One of the major characteristics of SNU is that it promotes its excellence in academia in the nation and recognizes their students' critical role not only to excel in their expertise but also to share that knowledge to the society. The key mission statement of SNU is to instill moral values to serve and share with the society (SNU, n.d.). SNU especially emphasizes support for students to acquire knowledge, values, attitudes, and skills to be "good and contributive" leaders in their society (SNU, 2020). Aside from providing students with much-needed knowledge and skills, SNU recognizes the importance of education that orients students to be capable of understanding their responsibilities and to be able to deal with contemporary challenges in the society. It is in this context that education promoted by SNU can be analyzed as a form of transformative learning towards the SDGs. Whether the institution intended or not, transformative learning is applied to ingrain the SDGs into practice. SNU states that education should be transformative to develop students as change agents in their personal and professional capacities to be able to contribute to improvements in their community and society (SNU, 2020). Developing these skills in students is a strategic role of HEIs to promote sustainable development (Leal Filho et al., 2019).

However, SNU's transformative learning is based on excellence in traditional academic disciplines. There is an underlying implication that to be adequate leaders for the future, a sense of social responsibility is a prerequisite. Such belief and attitude must be cultivated in the students through SNU transformative learning in addition to excellence in general studies the students should have already achieved. In these circumstances, it may be difficult for learning to ultimately bring about change in the students to develop critical thinking skills and self-reflection necessary for transformation in students' thoughts, behaviors, and actions toward sustainability. It can be argued that the fundamental idea behind SNU's transformative learning somehow relates with the notion of *noblesse oblige*. Most importantly, whether any kind of change or transformation is achieved by SNU is yet to be seen. With these questions in mind, the next section will examine the Seoul National University Institute for Sustainable Development (hereinafter SNUISD), an institute that directly deals with the issues of the SDGs and is said to provide learners with the opportunities for transformative learning.

Teaching and Learning for the SDGs at the Green Leadership Program of SNUISD

SNUISD directly relates its activities to the SDGs to educate students to be more responsive to the demands for a sustainable society. SNUISD focuses on providing programs for students to develop knowledge, skills, attitudes, and values they need to address global challenges and promote sustainable development. The institute was established in the midst of increasing discussions on climate change and environmental crisis in 2009, which is why it particularly aims to equip students to become "green and sustainable leaders" with a special focus on environmental issues for sustainable development.

The vision of SNUISD is to be a leading sustainable development research institute for a sustainable society. Its aims are to mitigate the effects of global warming, to develop green industries, and to realize advanced civil morality (SNUISD, n.d.). In order to be "green" environmentally, socially and economically, the institute fulfills three main functions: -) to lead collaborative interdisciplinary research and policy development;

–) to provide teaching and learning for sustainable development, and –) to cultivate embodiment of affiliated studies (SNUISD, n.d.). Among various activities, SNUISD's educational program for sustainable development is worth examining closely.

SNUISD provides a variety of teaching and learning opportunities for sustainable development and one of them is called SNU Green Leadership Program. The program has been operating since 2011 to cultivate “Green Leaders” who are capable of dealing with sustainability risks. The curriculum is for any undergraduate students who are interested in becoming Green Leaders regardless of their major. Participants are required to take at least five courses (15 credit points) then go through Green Internship in order to complete the course and receive a certificate from the Minister of the Ministry of Environment and the president of SNU.

In this program, SNUISD defines Green Leaders as those who hold knowledge on climate change and sustainability, capable of suggesting alternative solutions with an action plan to carry them out. Aside from the ultimate goal to transform students into Green Leaders, the curriculum entails specific objectives and approaches to learning. First, the program promotes students to integrate their expertise with their knowledge on sustainability by incorporating sustainability into existing disciplines. The curriculum then aims to foster what SNUISD calls the “social design ability” which is a capacity to apply knowledge to reorganize or reform the society for better sustainability. An example of this may be (re)designing social institutions to respond to climate change. Lastly, the curriculum aims to develop leadership in students to contribute to the achievement of the SDGs in the long term. Overall, the program aims to foster students who understand how to integrate knowledge required for a sustainable society, able to identify the central problems, and are capable of applying their knowledge to solve these particular problems for a more sustainable society.

For such a purpose, SNUISD's curriculum consists of 11 core subjects and 67 elective subjects related to the social sciences and natural sciences. SNUISD takes an interdisciplinary and multi-sectoral approach as it collaborates among various departments and majors to provide students the knowledge from various disciplines. Most of the courses already exist in different fields of studies, though some of the courses were specially developed for the program, while others were merged with existing courses. Especially by offering opportunities for internship at corporations, organizations, and institutions during summer or winter breaks, each student is given the chance to practice the knowledge and skills they acquire through the program. The program intends for the students to acquire knowledge and to become transformed into Green Leaders who can think and act as leaders for a sustainable future. In this sense, the teaching and learning paradigm of the program can be characterized as a form of transformative learning. The program intends to guide learners toward transformed modes of thinking, attitudes, and actions by integrating sustainability in problem solving, and inspires student engagement by encouraging them to apply knowledge into practice, which is necessary in a changing society (Figueiró & Raufflet, 2015; Koskela & Karkkainen, 2021).

However, despite the intentions of the programs to conduct transformative learning, what was actually delivered and learned through these practices is yet to be determined. Moreover, the program only provides elective courses concentrating on environmental issues. Additionally, the teaching and learning methods of the curriculum still follow features of traditional disciplines. In the course syllabi there seem to be no difference in

the method and practice of teaching and learning. Although the courses were offered from various existing disciplines integrated with sustainability in the form of an interdisciplinary program, there were not many changes in the way the courses would be taught.

Humanitas College, Kyung Hee University

Leading University for Sustainability in Korea

Kyung Hee University is recognized as one of the most reputable universities in Korea. The institution promotes “mutual prosperity for humanity” which well aligns with the goals of the SDGs. Ever since Kyung Hee was founded in 1949 based on the principle of “Scholarship and Peace”, Kyung Hee promises “to establish a respected university to create a better community” (Kyung Hee University, n.d.). More recently, Kyung Hee has announced its development strategy in “Global Eminence 2020 as a leap forward for the university and of the humanity”. The strategy emphasizes values of collectiveness, consideration, ethics, and public good. Under the guidelines, each college and affiliated institutes autonomously establish and implement their own specific plans. Overall, the main characteristic that distinguishes Kyung Hee from other HEIs is its aspiration to become an academic community that fulfills its social responsibility by cultivating world citizens.

Based on such aims, Kyung Hee has been vigorously strengthening its educational and institutional capacities to add global, national, and local contribution as part of its effort to take social responsibility aligning with the SDG agenda. The THE Impact Rankings show evidence of Kyung Hee’s contribution to the SDGs. In 2019, the university ranked first among Korean universities, while ranking first on SDG 11, eighth on SDG 9 and 26th on SDG 16 among all the universities in the world. However, when more indicators and universities were added for the following years, Kyung Hee was not able to rank among the top institutions. Although Kyung Hee is not able to compete with other Western universities in the league table after 2019, it cannot be denied that Kyung Hee is a prominent university in the context of Korea that pursues sustainability as one of their main initiatives to contribute to societal prosperity beyond their academic community.

For Human Prosperity and Civilization

Kyung Hee’s founding value is to build a peaceful global community and to create a flourishing civilization for the future (Kyung Hee University, n.d.). The mission statement itself is aligned with what the SDGs are promoting. Most of the initiatives and actions the institution is pursuing aim for sustainability. Furthermore, Kyung Hee also seems to practice teaching and learning for sustainable development in various sectors and at various levels by establishing new departments and curriculum. However, upon close examination of its activities, it is hard to determine the overall characteristics. In other words, despite the institution’s specific vision that aligns with the SDG agenda, initiatives and programs seem to lack coherence, as they are not coordinated by an independent office in charge. In addition, despite the ambitious and dedicated reframing of its initiatives, curricula and activities, the approaches undertaken still predominantly follow the traditional knowledge transfer model without providing reliable evidence of

what was taught and learnt. This may partly account for the fact that each dispersed college and institute follow their own aims and strategies under the university's broad vision. More specifically, Kyung Hee is well known for its distinguished graduate schools such as the Graduate Institute of Peace Studies, the Graduate School of Public Policy and Civic Engagement, and the Specialized Graduate School for Climate Change aimed at addressing issues pertaining to sustainable development.

The Graduate Institute of Peace Studies (GIP) is the very first institute to be established in Korea with the purpose of training leaders to promote global civil society committed to peace and human welfare. The school emphasizes its teaching and learning for a just, peaceful, secure, and affluent society through peace and governance research. The school also emphasizes the development of skills for constructive conflict management. The Graduate School of Public Policy and Civic Engagement provides various majors ranging from public policy, social welfare, civil society and NGOs to global governance. Teaching and learning at the institute pursue harmony and cooperation between states and civil society through research and practice of public governance in the global era. The Specialized Graduate School for Climate Change is an education and research project conducted by the government to nurture professional leaders to respond to climate change and promote related research. Kyung Hee has been selected as the main implementer of the five-year project that started in 2018 by the Ministry of Environment and follows a curriculum specializing in adaptation to climate change. For the program, Kyung Hee has integrated three different existing departments (Environmental Science and Environmental Engineering, Civil Engineering, and Architectural Engineering) to collaboratively learn to respond to climate change and its impact. These graduate programs provided by Kyung Hee imply how the SDG agenda is embedded in various schools and sectors.

Among Kyung Hee's institutes, Humanitas College is also worth examining as it represents the institution's most recent and innovative approach to contribute to worldwide human prosperity. Humanitas aims to provide liberal arts education to all undergraduate students through a series of general introductory courses on the essential topics on the humanities and natural sciences. Interestingly, Kyung Hee has adopted liberal education as a goal as well as the means to all other goals, including the SDGs.

Teaching and Learning for the SDGs Through Liberal Arts Education: Humanitas College

Humanitas College was founded to transform students into "ethical individuals, responsible citizens and mature members of the global community through its humanities" (Humanitas, n.d.). The objective of teaching and learning in Humanitas is for "learners to be prepared and respond to current challenges for the future of sustainability such as climate change, inequity, an aging society and rapid transformation of society through technology" (Humanitas, n.d.). Based on its educational aim to transform individuals towards sustainability and mutual responsibility, Humanitas emphasizes the importance of liberal arts education as learning content, mode, and setting. The course of Humanitas encompasses approaches and contents of the traditional ideal of humanitas, covering not only Greek and Roman but also Asian and world literature, philosophy, history, the social sciences, and the natural sciences to meet the needs of the current age.

Humanitas offers a curriculum that consists of six core courses, an option of 197 courses to meet distribution requirements in 7 different cross-disciplinary themes, and approximately 90 elective courses. All undergraduates of Kyung Hee are required to acquire a minimum of 35 credit points; all six core courses (total 17 credit points), five courses (15 credit points) among the distribution requirements, including a minimum of three credit points among elective subjects. Regarding the core courses, they are divided into three different themes: “Human Quest for Values”, “The World We Live in”, and “From Big Bang to Civilizations” to understand human, the world and its citizen, and civilization, which all freshmen must take during their first year.

Among the core courses of Humanitas, the Global Citizenship Education (GCED) course launched in 2019 is one that most closely relates to the SDGs. As all students are obliged to take GCED, Kyung Hee is the first and only university in Korea by far to implement GCED as a compulsory course for all students. Approximately 55 classes (called “The World and Global Citizenship”) are offered every semester to accommodate all freshmen in small sized classes. Through GCED, Kyung Hee aims to provide an opportunity for every student to acquire a global perspective and to become aware of global issues.

Additionally, Kyung Hee has developed its own curriculum and textbook for GCED focusing on fostering student engagement through creative problem solving and discussions. The course is especially introduced as an analysis-resolution course that closely links with the SDGs. It is said to allow students to gain first-hand understanding of the global problems, such as climate change, ecosystem deterioration, poverty, inequality, and democracy at risk, and to realize these issues that are directly related to their own lives. Additionally, as Humanitas strives to move away from existing pedagogical methods, the course intends to pose problems without imposing answers to the questions. Instead, individual students are to recognize each issue and then identify solutions through various activities based on the textbook. Kyung Hee introduces Humanitas as promoting innovative teaching and learning methodologies, including problem-based learning, discussion forums, student-led projects, debate and discussion, and online activities. When taking a closer look at the course syllabus, however, it is hard to clearly identify innovative pedagogy in their traditional classrooms. Therefore, it can be stated that the teaching and learning methods need further innovation as Kyung Hee attempts to implement teaching and learning approaches and contents that target the SDGs.

Discussion

Characteristics of Teaching and Learning for the SDGs of Two Universities

The two cases from Seoul National University and Kyung Hee University well represent how the SDGs are integrated into teaching and learning in HEIs in Korea. It cannot be denied that the approaches these HEIs take in embedding the SDGs show their effort to embrace sustainable development. Although the practices of teaching and learning in the two HEIs provide meaningful implications, limitations and challenges are also evident in terms of the role of HEIs for promoting sustainable development.

Although the practices of SNU do not exactly align with the content of the goals and indicators of the SDGs, its vision of transformative learning to equip students with some of the values and priorities in the SDGs could be identified. Particularly, the SNUISD’s

Green Leadership Program is closely examined as a SDGs-embedded teaching and learning practice that focuses on promoting requisite leadership in line with SNU's vision. While the conventional trait-based leadership concept or charismatic leadership theories are now clearly inadequate, leadership based on collective responsibility and action has been called upon in the SDG era. In this context, SNU emphasizes the development of leadership by exposing students to more interdisciplinary and transdisciplinary approaches while allowing them to recognize complex elements of challenges and solutions that go beyond their academic disciplines. By focusing on leadership in this way SNU aims to awaken social consciousness in students, which may eventually transform their moral and ethical path in life.

However, despite the intentions of the program, what is actually delivered and learned is questionable due to several limitations. First, only a small portion of students and limited sectors are exposed to such learning as the program confines itself to an elective course focusing on environmental issues. Second, the teaching and learning methods still follow the features of traditional models, while few changes could be identified in the content, since the program is offered through already existing courses integrated with sustainability in the form of an interdisciplinary program. Lastly, the teaching and learning approach to the SDGs is not holistic and lacks an institutional management by the university based on a dedicated and comprehensive sustainability agenda. Therefore, despite SNU's rhetorical claim to strive for transformation via teaching and learning, change scarcely occurs. There is much room for further development in its curriculum and pedagogies to bring about change that fits its vision statement.

Kyung Hee is recognized as a leading university that strives for human prosperity. In the process of promoting its vision, the SDGs have been embraced through various approaches throughout the institution. Among these efforts, the most innovative liberal arts education is the Humanitas College. Through Humanitas, all undergraduates are exposed to the concept of sustainability as a challenge for the future. Students are educated to acquire a global perspective and become morally committed to tackle contemporary issues, especially through its GCED course. The courses provided by Humanitas, including GCED, show how the SDGs are embedded in teaching and learning at Kyung Hee. Yet, despite innovative practices based on the institution's overall vision, it lacks a holistic management and support to implement collaborative teaching and learning on the SDGs. Additionally, Kyung Hee has been struggling with issues of removing several courses as well as instructors from Humanitas due to structural readjustment (J. H. Kim, 2019). Among various reasons, the main causes are reported to be the shortage of professors (J. Kim, 2019). The commonly called "Time-Lecturer Law", which was enacted in 2019, meant to enhance the working conditions of contract lecturers in terms of salary and job security. Instead, the law has led to massive dismissal of contract lecturers by universities trying not to go over budget. Such structural limitations put sustainability of the universities at risk. In this context, it seems that unless financial and structural support and leadership are in place, the proactive attempts of Kyung Hee for sustainable development will remain only on paper. Furthermore, despite ambitious and dedicated reframing of its initiatives, curricula, and activities spread throughout the institution, the pedagogical method of Humanitas courses still mostly follows the traditional knowledge transfer model without providing reliable evidence of what was taught and learned.

Transformative Learning for the SDGs in HEIs: The New Wine Needs to be Put Into New Bottles

When considering the broad scope of SDGs involving stakeholders at all levels, it becomes apparent that teaching and learning for the SDGs require a more holistic approach beyond the traditional instructional format (Cottafava et al., 2019). Thus, transformative learning approaches are underlined as one of the key concepts and strategies for HEIs to play their critical role in providing the necessary knowledge, evidence-based solutions, and innovations to support the achievement of the SDGs. In this context, transformative learning is perceived as the teaching and learning process that motivates learners to critically reflect and question their assumptions and beliefs for a sustainable future (Leal Filho et al., 2018). Among scarce studies on teaching and learning for the SDGs, features of transformative learning approaches such as interdisciplinarity and transdisciplinarity, active engagement, and managerial skills are emphasized so that the SDGs can be applied in real contexts. Correspondingly, the Sustainable Development Solutions Network (SDSN) also highlights transformative learning as the most common way in which HEIs can implement education for the SDGs based on interdisciplinarity, action-based learning, and multi-actor involvement. Transformative learning can be applied through awareness raising, interdisciplinary introductory units, discipline-specific units, programs or activities focused on the SDGs, or sustainable development degrees (SDSN, 2020). Inevitably, teaching and learning for the SDGs require pedagogical innovation.

Thus, in the SDG era, new wine should be put into new wineskin. It is crucial to consider new and innovative features of transformative learning by integrating sustainability perspectives in problem solving (Figueiró & Raufflet, 2015), encouraging active student engagement and student-led decision making (Kysilka, 1998; Disterheft et al., 2015), and prompting students to apply theoretical knowledge into practice and take actions that reach beyond their immediate surroundings (Parente et al., 2012; Cottafava et al., 2019). To promote education toward such transformation, it is essential for HEIs to “rethink radical innovations” in their organizational operations and interactions (Ferrer-Balas et al., 2008). However, the new wine is in the state of being put into old wineskin due to many challenges and barriers to transformation despite HEIs’ efforts.

The fundamental difficulty in sustainable development education is that sustainability is a large and complex phenomenon and various backgrounds, definitions and understandings are easily intermingled (Koskela & Karkkainen, 2021) among various stakeholders. Teachers are well known to be the most influential players in education for sustainable development as their views and attitudes affect their teaching toward sustainability (Quinn et al., 2016). However, their perception of sustainability is revealed in previous studies to be quite narrow and shallow (Goller & Rieckmann, 2022; Koskela & Karkkainen, 2021). To be able to determine the teaching and learning for sustainable development, a well-combined set of teachers’ knowledge, skills and pedagogical practices is required (Esa, 2010). However, as mentioned in Hofman-Berghom (2018), teachers cannot be prepared to teach sustainability in HEIs due to various challenges, especially organizational problems.

In this regard, leadership and management of HEIs based on whole-school and holistic approach are fundamental to overcome the challenges and barriers towards sustainability. Leadership must be in place to support the introduction of the SDGs in

HEIs and to drive strategic interventions, such as embedding changes in the curricula, community engagement, and campus operations (Aleixo et al., 2018). Unless the leadership is committed to education for the SDGs, there will be lack of awareness, engagement, and involvement of all stakeholders, and actual transformation will not be brought about. This is also evident in the universities under the study. The institutions lack support from top management and do not take the whole – university approach. Instead, only a few institutes or courses sporadically reorganize their initiatives and curricula in response to the rising pressure to adopt “the trendy rhetoric of sustainability”. In such circumstances, transformation toward sustainability can scarcely be made at the teacher and student level.

Furthermore, the underlying mechanism of the universities seems not to have transformed dramatically since the emphasis on internationalization began in Korean HEIs 30 years ago. HEIs in Korea are still mostly driven to internationalize and build global competitiveness through quantitative accomplishments such as increasing the number of international students and scholars and making into international rankings. It follows that HEIs tend to respond to sustainability merely as a call for internationalization. In order to ultimately bring holistic transformation in students to educate them as future leaders for a more sustainable society, pedagogical innovations should be implemented by including sustainability in HEI institutional planning strategies and practicing proactive leadership at the management level.

Conclusion and Implications

The study has aimed to critically examine the approaches and practices of teaching and learning for the SDGs based on a case study of two Korean universities: Seoul National University and Kyung Hee University. HEIs are known to be the prevailing drivers on the way to a more sustainable society through their teaching and learning, especially teachers as the key players. To promote education for sustainable development, the starting point should be to place sustainability at the center of the institutions’ education, research, and services to transform their principles into practice, and this most importantly requires pedagogical adjustments (UNEP, 2013). However, dissonance among initiatives and practices in teaching and learning for sustainability has been identified upon close examination of the leading universities in Korea promoting for sustainable development. Although the Green Leadership Program of SNU and Humanities College of Kyung Hee University both explicitly attempt transformation toward education for sustainability through innovative initiatives, curricula, and content, the reforms remain rhetorical. The initiatives show little change in pedagogy and do not provide reliable evidence of what is taught and learned. This may be because most of the institutions and their programs sporadically reorganize their initiatives and curricula in response to the pressure to apply the term “sustainability” within a larger effort toward internationalization without a dedicated managerial leadership nor a comprehensive, university-wide sustainability agenda.

Based on the examination of the practices of teaching and learning for sustainable development, this research draws out a few policy suggestions for a well-rooted practice toward the SDGs. First, HEIs need to take a whole-university approach through the sustainable development agenda set by each institute. HEIs are only able to effectively

and actively reshape themselves toward the SDGs if the institutional management and leadership are aligned with the agenda. This specifically requires establishing coordination bodies to manage and support reorientation of curriculum, pedagogies, and learning environments to education for sustainable development. Secondly, pedagogical adjustments are necessary to reach the ultimate goal of teaching and learning for sustainability, which is to transform learners to think and develop adequate knowledge and skills to contribute to sustainable development. However, as there is a lack of studies on the issue, it is essential to establish a teaching and learning center focusing on developing instructional modules and learning models for sustainable development. Through this center, more adequate teaching and learning practices can be developed and proliferated. In addition, teachers including all staff at HEIs can benefit by learning about sustainability themselves, as most have little specialized knowledge (Velazquez et al., 2005). These suggested changes are the minimum preliminary steps for HEIs to transform themselves to ultimately bring holistic transformation in students and future leaders for a more sustainable society.

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