An interpretive analysis of the 2030 Sustainable Development Goals in Hong Kong public universities

Jae Park[1] · Tamara Savelyeva[2]

Abstract

This study in the research domain of higher education sustainability addresses issues of policy and implementation of the Sustainable Development Goals (SDGs) in and through Hong Kong public universities. The purpose of the study was to critically analyze the *problématique* of achieving the SDGs by the Hong Kong higher education sector. The study used a post-empiricist qualitative design with Interpretive Phenomenological Analysis and an embedded case study methodology in order to explore the issues of the SDGs policy and implementation in eight public Hong Kong universities. The concept of sustainability *ensoulment* and the Higher Education Institution Sustainability Model served as a theoretical grounding for the interpretative analysis. The interpretive results showed a broad range of university responses and governmental support for SDGs despite small number of universities, and a score of authentic SDGs-related efforts, which were fully embedded into the educational mission of the universities. The essence from the interpretive analysis of the data suggests that the universities' authentic attainment of the SDGs requires a 'salutary detachment' from putting excessive priorities on superficial sustainability standards and considering universities' global ranking league tables as their principal goal. The study provides a structured discussion within five thematic areas: (1) regional-dominant sustainability challenges; (2) financing structure and independence; (3) institutional organization; (4) extent of democratic processes; and (5) communication and interaction with society. The research argues that a genuine SDGs attainment originates from what universities know best and regard as their threefold mission—research, teaching and knowledge transfer—to effectively generate global citizens with full ensoulment of the SDGs spirit and values, and thus, turning universities into authentically sustainable institutions.

Keywords SDGs · Hong Kong · Public universities · Higher Education Sustainability Model · Interpretative phenomenological analysis · Greening initiatives · Sustainability sciences · Sustainability curriculum

Introduction

Commonly known as the Global Goals, the United Nations Sustainable Development Goals (UN SDGs) were adopted as a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030 (United Nations, 2015). Rooted in the original post-war UN agenda of world peace, freedom and development

✉ Jae Park
  jpark@eduhk.hk

  Tamara Savelyeva
  tvs3@cornell.edu

1 The Education University of Hong Kong, Hong Kong SAR, China

2 The Hong Kong Institute of Education for Sustainable Development, Hong Kong SAR, China

(UN, n.d.), the SDGs are an international effort to fulfill mankind's aspirations for sustainable development. Sustainable development is, on the other hand, a discourse with dual priority to the environment and development. It is shaped around and intermediately defined as a foundational economy-society-environment framework (Barbier, 1987; International Union for Conservation of Nature, 1980; UNCED, 1992; United Nations World Commission on Environment and Development, 1987). Under this framework, the SDGs consist of 17 goals and over a hundred specific value-targets. Education is represented by its SDG 4 "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all." The SDGs are a result of an evolutionary process that took decades of other UN sustainability efforts to articulate, implement and advance the UN agenda in a systematic and integrated way. The articulation of the

17 SDGs was out of a series of world commissions, international summits and conferences.

From the outset of the SDGs implementation, there have been efforts to localize the international sustainable development framework and create monitoring systems to track the process. Europe and the Asia–Pacific region have two notable examples of adopting the SDG targets and indicators: the European Union launched the *Education and Training 2020* strategic framework (European Commission, 2020), while South Korea established the *K-SDGs* by gathering opinions from major socio-economic groups and stakeholders to remedy insufficient information on the indicators (Ministry of Environment of the Republic of Korea, 2019).

The SDGs implementation in general and the SDG 4-Education in particular met an early challenge, as the local institutions overseeing the progress struggled to collect the data needed for calculating key indicators for follow-up and review of the SDG 4. The 2016 assessment of the SDG 4's data availability at the country level conducted by the UNESCO Institute for Statistics showed that in 121 countries, fewer than one-half (47%) of the regional staff provided data for 11 global indicators; whereas nearly two thirds (63%) reported having the data needed to calculate the remaining 32 thematic indicators (UIS, n.d.). Even for the assessment in the following year, ten out of 43 indicators were unavailable in all countries, while eight global indicators and 11 thematic indicators were reported by 50% or fewer countries. Only one global indicator and six other thematic indicators had more than 75% coverage (UIS, n.d.).

Beyond the challenge of the SDG 4 reporting and monitoring lies the difficult tasks of policy implementation and local actions. In this regard, higher education institutions (HEIs) are recognized as drivers and change agents of sustainability development (Savelyeva, 2013, 2022a; SDSN, 2021). HEIs are not new to sustainability and their key role in sustainable development can be traced back to Principle 19 of the 1972 Stockholm Declaration, which identified education and environment as the key drivers for implementation of sustainability-related actions (UNEP, 1972). Since then, a myriad of global initiatives have sprouted up on the UN platform, notably, the United Nations Higher Education Sustainability Initiative (UN HESI) and the United Nations Higher Education and Research for Sustainable Development (UN HESD). These international initiatives provide HEIs "with a unique interface between education, science, and policy making" (UN HESI, 2017, para. 1). They allow to connect HEIs, track universities' participation, and monitor the SDGs implementation. However, these platforms do not provide an authentic, in-depth, contextual understanding of what really happens in universities. What are the ways in which HEIs adopt, rethink, and implement the SDGs through the localized frameworks and institutional efforts in their pursuit of the SDGs?

In answering these questions, the present study aimed to provide a rich, detailed, and focused interpretive analysis of the responses and contributions of the Hong Kong public universities to the 2030 SDGs Agenda. Instead of an objectivist description of what Hong Kong universities do or declare they do for the SDGs, this study employed a qualitative phenomenological design and an in-depth Interpretive Phenomenological Analysis method to analyze the local HEIs public universities cases. Following the phenomenological design tradition, it is important to provide the researchers' positionality[1] before detailing the research method and reporting the finding of the study (Creswell & Poth, 2018).

'Sustainability ensoulment' in and from universities

Sustainability ensoulment refers to the process of incorporating sustainability-related values at all levels of human existence. In the context of HEIs, *ensoulment* illustrates the process of fostering sustainability-oriented consciousness as a result of educative processes and practices (Savelyeva, 2020; Savelyeva & Park, 2012; Savelyeva & Rickards, 2017). Drawing an analogy from the Ancient Greek idea of incorporation of soul, the researchers submit that sustainability consciousness needs to be embodied in a person through learning endeavors and, thus, it can grow to become a guiding principle in life.

HEIs' threefold mission (teaching-research-service) grounds sustainability ensoulment by upbringing a 'whole-rounded person' and shaping/ensouling a sustainability mindset in the young (Barnett, 2017; Savelyeva, 2013, 2018a). Universities are, therefore, key agents of developing people's sustainability mindset and lifelong habits in and from campuses. Ensoulment in sustainability education is about helping people to embody sustainability values with a firm intellectual commitment and lasting predispositions. It is also related to time-honored tasks of informing and forming sustainability-minded citizens, equipping them with capabilities to build sustainable future for themselves, their community and the nation.

Along with the idea of sustainability ensoulment, the *HEI Sustainability Model* (Savelyeva & McKenna, 2011; Savelyeva & Park, 2012) was the theoretical grounding of the study. The *HEI Sustainability Model* suggests three main ways of advancing sustainability and navigating across the

---

[1] The authors have been working in two Hong Kong public universities during the past 10 years. They are involved in the SDGs implementation at the multiple levels of engagement with local, regional, and international field of study and sustainability stakeholders.
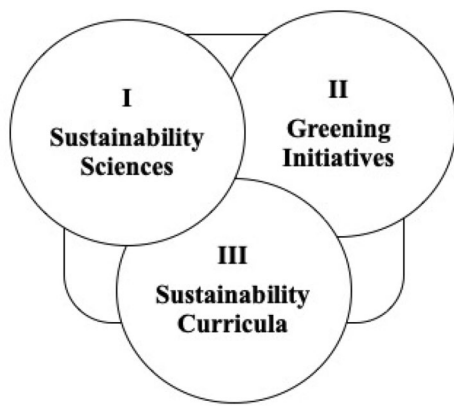
Fig. 1 The Higher Education Institution Sustainability Model
Note. Original illustration by T. Savelyeva based on the earlier works of Savelyeva and McKenna (2011); Savelyeva and Park (2012)

compartmentalized university structure, namely, (1) Greening Initiatives, (2) Sustainability Sciences, and (3) Sustainability Curricula (Fig. 1).

The process of advancing in campus sustainability will be discussed later by five analytical clusters suggested by Stephens et al. (2008), namely, regional sustainability challenges, financing, institutional organization, decision-making processes, and, interaction with society.

Methodology

This qualitative phenomenological study of the embedded cases aimed to analyze the responses to the 2030 UN SDGs in the Hong Kong public HE sector with the following research questions (RQ):

RQ1: What are the characteristics of the interventions and actions of the Hong Kong public universities in regard to the 2030 SDGs Agenda?

RQ2: How do public universities interact with the government and students as their key stakeholders?

This study employed a post-positivist discursive analytical tool, namely the Interpretive Policy Analysis (IPA) (Yanow, 2000) and took the analytical steps in order to identify: (1) the artifacts, such as language, objects and acts, that were significant carriers of the SDGs' meaning; (2) communities of meaning, interpretation, speech, and practice that were relevant to the SDGs policy implementation; (3) the localized discourses relevant to the SDGs practice in universities; and (4) the tension points and their conceptual sources (affective, cognitive, and/or moral) that mirrored differences in interpretations by different SDGs stakeholders at universities.

The choice of the IPA method benefited the design, purpose, and the researchers' positioning of this study in a number of ways: the IPA method (1) emphasized the importance of non-empiricist framing and hermeneutics of the SDGs policy formulation and its implementation in universities; (2) allowed greater open analytical deliberation and contestation on the structures, processes, and practices of the SDGs' university adoptions; and (3) organized the research claims and interpretations in an accountable fashion, less prone to the law-like, prescriptive argumentations (Yanow, 2000).

The purposive sampling included all eight publicly funded universities in Hong Kong SAR: The University of Hong Kong; The Hong Kong University of Science and Technology; The Hong Kong Polytechnic University; The Chinese University of Hong Kong; City University of Hong Kong; Hong Kong Baptist University; Lingnan University; and, The Education University of Hong Kong.

To meet the research purpose and provide rich, thick and focused analytical description of the universities' responses and contributions to the 2030 UN SDGs Agenda, the researchers followed the IPA analytical steps and investigated the following textual and graphic objects:

- Hong Kong government official documents and press releases;
- Reports and opinion articles in the media;
- Relevant documents of all eight publicly funded universities, such as program descriptions and advertising of events, course outlines, public relation materials; student promotional/recruitment materials, both undergraduate and post-graduate;
- Documents and media coverage of the universities' SDGs involvement with industries and business sectors;
- Personal unstructured interviews with the university administrators and teaching professoriate in charge of sustainability; and
- Discursive artifacts that emerged from the university's internal open academic publications about the SDGs in Hong Kong.

As part of this study, the researchers followed on the SDSN Hong Kong 2018 study of the SDGs' perceptions of Hong Kong youth (CCPOS-CUHK, 2018), and they piloted an online questionnaire of students from eight public universities ($n = 47$) to test the provisional questionnaire instrument, which was aiming to understand students' recognition and awareness of the SDGs. The questionnaire included seven closed-ended question items, and it was distributed to a convenient sample of students via *Google Forms®*. The questionnaire items explored students' knowledge about

the relationship between SDGs and environmental-friendly practices; their recognition of the official Goals (SDGs); their awareness of SDGs-related activities on camuses; and their desire to join such activities. The researchers used descriptive statistics to analyze the data. The results of the pilot study are presented in the *Students about SDGs across public universities* section of this paper.

To bind the university cases within the IPA method (Fischer, 2003), the researchers defined the 'policy community' as the 'Hong Kong publicly funded universities,' and they defined the 'policy space' as the '2030 SDGs Agenda.' The researchers also addressed the following IPA question in their discursive analyses and interpretation of the data (Gee, 2011): What perspective of SDGs' social good has each piece of data communicated in the universities? What was the meaning and understanding of the SDGs as normal, right, good, correct, appropriate, valuable, 'the ways things are/ought to be,' high or low status? The researchers applied phenomenology (philosophy of experience), falsification of extant assumed universals, and deconstruction as analytical tools that brought forward the significance of the data and their narrative implications.

The researchers were guided by the *HEI Sustainability Model* (Savelyeva & McKenna, 2011) in their analysis with the three major types of sustainability efforts on campuses:

- *Greening initiatives*—infrastructure-based campus greening actions, which target 'reduce-reuse-recycle' efficiency of campus operations. Campus greening includes installation and use of energy saving materials and appliances; construction and maintenance of eco-certified buildings; operations of environmental centers, organic farms, locally sourced student-run catering services; and food waste management services. These efforts are centralized and orchestrated by a sustainability office or unit in charge of campus infrastructure and/or sustainability policies and reporting. Campus greening also includes all possible sustainability-related community and outreach projects, which are run collaboratively with other universities and non-profit organizations.

- *Sustainability sciences*—universities' research projects in pursuit of academic and scientific prestige that benefit people and the planet and can be directly linked to a disciplinary field of sustainability.

- *Sustainability curricula*—universities' teaching and learning content, means of instruction, educational methods, pedagogical leadership, professional development, and educational platforms, which deliver sustainability-related workshops, programs and courses.

Findings: Hong Kong higher education sector's reaction to the SDGs

The interpretive findings of this study were organized into eight public university cases, starting with the general description of the public HEIs.

In 2010, the universities in this study launched the Hong Kong Sustainable Campus Consortium (HKSCC), aiming to integrate resources and efforts for implementing the UN SDGs with positive impacts on the local society (HKSCC, 2019). The HKSCC serves as an integration network that allows individual public universities to collaborate, take one another as a reference point, share sustainability reports, and negotiate as a group with the business and political sector. One of the Consortium's limitations is its narrow focus on "the environmental side of sustainability practices, [while] the social impact side is less engaged in the process" (Xiong & Mok, 2020, p. 11).

The Hong Kong public universities, and so their sustainability efforts, are funded and monitored by the University Grants Committee (UGC) of Hong Kong, a non-statutory advisory committee that consults the Government of Hong Kong on the financing and expansion needs of its subsidized HEIs. The Government's public funding for universities follows different schemes and modalities. It includes direct yearly budgeted funding, research grant allocations based on proven research capacities under the Research Grant Committee (UGC's sub-committee), teaching development grants, and one-plus-one 'match fund', when the UGC matches the fund raised by the university from non-government sources. Another source of funding for the public HEIs sector is Government-industry alliances' events and awards, such as the Climate Action Recognition Scheme sponsored by *Wofoo Social Enterprises* (charity sector) and The Hong Kong Shanghai Banking Corporation (HSBC) (banking sector).

The Hong Kong Government is a key player in the HEIs sector's reaction to the SDGs. In its commitment to sustainability, the Government officially joined the UN-based Sustainable Development Solutions Network (SDSN) and gained an international standing on the SDGs implementation, as it became a leader of the SDSN's regional chapter. Launched in 2012 under the auspices of the former UN Secretary-General Ban Ki-moon, the SDSN secretariat was first hosted by the Columbia University Earth Institute. Later, it changed its status to a non-profit organization with multiple chapters and head offices in New York and Paris in 2016. The SDSN Hong Kong Chapter, as all other national and regional chapters, pursues the goal of mobilizing knowledge

institutions around the SDGs and the Paris Climate Agreement through outsourcing-specific tasks (for example, the design of the sustainable development reporting platform was outsourced to the *Bertelsmann Stiftung* (Sachs et al., 2020).

The launch of the *Sustainable Development Solutions Network Hong Kong* (SDSN Hong Kong) was co-hosted by The Hong Kong Jockey Club Charities Trust[2] and The Chinese University of Hong Kong in December 2018. It is not surprising that the Chief Executive of the Hong Kong Government was at the ceremony, as the SDSN has its origin in the United Nations.

Case 1: The University of Hong Kong (HKU)

HKU greening initiatives

Founded in 1911, the HKU is the oldest university in Hong Kong. The HKU implements the SDGs Agenda through two structures: Sustainability Unit and a Sustainability Office. The HKU Estate Office in charge of campus infrastructure and installations management and maintenance, takes up a sizable amount of day-to-day work of campus greening and the reduction of ecological footprint (HKU-EO, 2019). It oversees the greening works in university premises, such as building and retrofitting works, green transport and facility management.

The Sustainability Office directly under the Vice-Chancellor/President meets the bigger and the outer university's sustainability mission. The Office is manned with a full-time office head, two project managers, one sustainability analyst, one administrative officer, and, student interns and 'Green Ambassadors' (Xiong & Mok, 2020). The Office has been in charge of data collection and submission for the HKU's sustainability reports such as the *Times Higher Education Impact Rankings*[3] that requires participant universities to provide one mandatory (SDG 17, Partnership for the Goals) and four elective SDG indicators (3 Good Health and Well-being, 4 Quality Education, and 10 Reduced Inequalities).

Through its Sustainability Office, the HKU participates in the International Sustainable Campus Network (ISCN), an international forum that the HKU joined prior to the HKSCC. The HKU is also a member institution of the Advancing Sustainability in Higher Education (AASHE) established in 2005, which is a mega international association with more than 900 member institutions for the advancement of sustainability in HE.

It is through the Sustainability Office that the HKU makes public their achievements and actions on sustainability. The 2019 sustainability report assertively highlights the institutional SDG efforts with its ranking in the global league table: "HKU ranked 10th globally in the 2019 Times Higher Education (THE) University Impact Rankings. Riding on this success, we have strengthened our commitment and effort on promoting sustainability along the 17 United Nations Sustainable Development Goals (SDGs)" (HKU, 2019).

HKU sustainability sciences

The research on the issues related to the 17 SDGs, from environmental science to political science (medical science and political science inclusive), started prior to the articulation of the 2030 Agenda in 2015. For example, as early as 2013, the HKU started a community outreach program called "Sustainable Lai Chi Wo: Living Water & Community Revitalization—An Agricultural-led Action, Engagement and Incubation Programme at Lai Chi Wo" with the support from The Hong Kong and Shanghai Banking Corporation (HSBC). This same banking corporation scaled up the program by renaming it as "HSBC Rural Sustainability," now with focus on the SDGs Nos. 3, 4, 11, 12, 13, 15, and 17 (HKU-CCSG, 2020).

HKU sustainability curricula

The Common Core Courses—a set of general education courses in the freshmen year—have four main areas of enquiry: (1) Scientific and Technological Literacy, (2) Arts and Humanities, (3) Global Issues, and (4) China: Culture, State and Society (HKU-CC, 2020). The academic year 2017/2018 introduced thematic clusters 'Sustaining Cities, Cultures, and the Earth.'

In 2019, the SDGs were introduced into the university information systems, called the 'Registry and Student Information System', which used "SDG attributes" to assign relevant SDGs to each university course. In this system, the university's divisions were required to report all of the SDG-related initiatives retroactively, starting from September 1, 2017 till September 30, 2019 (HKU-Sustainability Office, 2019).

In addition, the HKU run the "SDG innovation challenge" that aimed to promote a few selected areas of the SGDs per academic year. For 2021, the three targeted key areas were good health, quality education and reduced inequalities. In other years, the "SDG innovation challenge" included the thematic areas of disaster prevention, poverty and environmental protection. This initiative also tried to achieve its intended goals through teaching and learning experiences by offering a related course CCGL9058 "Villages and Global Futures."

---

[2] With a total donation of USD 549.2 million in 2019–2020, it ranked no. 4 in the *World Charity Donor List*.

[3] According to THE World University Raking, the *Impact Rankings* is "the only global performance tables that assess universities against the United Nations' Sustainable Development Goals (SDGs).".

Case 2: The Hong Kong University of Science and Technology (HKUST)

HKUST greening initiatives

Under the institutional motto "Serve, Learn, Act," the HKUST was founded in 1991 and quickly became a globally recognized university. Its mission statement is to nurture agents for positive change. It has a Sustainability Unit responsible for the SDGs-related initiatives and coordination tasks. This office has a unit head, one sustainability program manager, one health, safety and environmental specialist, and about twenty students serving as eco-representatives of the Sustainable Campus Leadership Program (Xiong & Mok, 2020). There is another group of student volunteers under the name of the 'Green Team' in the Department of Sustainability. Through social media tools (Facebook, Instagram), they raise awareness about the SDGs among their peers.

Thorough its Suitability Unit, the HKUST maintains the same institutional networks as the HKU, locally, the HKSCC, and the ISCN and the AASHE globally.

A special feature of this university's SDGs efforts is a community engagement initiative called "HKUST Connect" (HKUST, 2021). It links students learning with community outreach though non-academic activities and tutoring such as the "Changemaker Gear Up Training Series" program and the "Service Learning Trips" program (e.g. Cambodia and Indonesia) currently on hold due to the ongoing COVID-19 pandemic. Although non-academic in character, it could also be accounted for the *HKUST Sustainability Curriculum* as detailed below.

HKUST sustainability sciences

As a university specializing in science and technology, HKUST conducts diverse and technically advanced research related to the SDGs.

HKUST sustainability curricula

For the academic year 2020/2021, the HKUST was focusing on the SDGs Nos. 1, 2, 3, 4 and 10. A modality of operation was by engaging its students in global volunteerism with the United Nations Volunteers (UNV) program. Specifically, these curricular and extra-curricular activities stressed the themes of poverty, inequality, individual passion, and creativity for the empowerment of the marginalized groups, as it is shown the following synopsis:

Goal 10: Reduce inequality within and among countries

-Despite significant strides in reducing poverty, inequality still persists and, in fact, inequality within countries has risen. There is growing consensus that economic growth is not sufficient to reduce poverty if it is not inclusive and if it does not involve the three dimensions of sustainable development—economic, social and environmental.

-You can use your passion and creativity to take action to empower the disadvantaged and marginalized populations, promoting the social, economic and political inclusion of all, regardless of age, gender, disability, race, ethnicity, religion or other status.

Prior to the pandemic, the HKUST had service programs for the community, both internationally and locally, in partnership with NGOs. For example, the UNV-Hong Kong Volunteer Internship Program is subsidized by the Hong Kong Government, which has being supporting a 6-month long volunteering in UN agencies located in Central and South East Asia since 2015. Another service program, which HKUST students can join is the Soup of Love, an elderly care and food program in local partnership with the Haven of Hope Bradbury King Lam Community Health Development Centre.

Case 3: The Hong Kong Polytechnic University (PolyU)

PolyU greening initiatives

Initiated as the Government Trade School in 1937, the PolyU legally attained university status in 1994. With strong business and engineering faculties, the PolyU is ranked 75th globally in the QS World University Rankings (WUR) 2021, with six disciplines ranked among the world's top 50 by the Subject 2020 QS WUR. The University has an ad hoc website with key information to introduce the SDGs. It also has a Campus Sustainability Office with an office head, four sustainability officers and two administrative staff (Xiong & Mok, 2020). Through this office, the PolyU networks with the HKSCC. Only the PolyU among the eight public universities belongs to a locally founded (in 2015) University Social Responsibility Network (USRN) in order to integrate social responsibility into efforts to solve social problems although not originally aligned to the 17 SDGs (USRN, 2021). The USRN presently has 16 member universities from 13 different countries with the PolyU as the founding member and the host of its official website.

PolyU sustainability sciences

Many research areas have clear research links to the SDGs. One explicit and direct link was the participation of 17 delegates of the PolyU, mostly PhD students, in the 2016 WC2 (World Cities, World Class) Network. At this event, the young researchers "split into the five theme groups of Business, Eco-campus, Global Cultures, Global Health and Transport, the attendants discussed the role of the University for achieving the UN Sustainable Development Goals (SDGs)" (PolyU, 2016).

PolyU sustainability curricula

A unique approach of the PolyU to some of the 17 SDGs is guided by an overarching framework of internationalization of curricular activities. The internationalization initiatives can be fully curricular and credit bearing like in the case of the course "Fostering Global Citizenship through Sustainable Development Goals," which was a 3-credit point General Education course. The course had explicit objectives such as, among others, fostering global citizenship through the UN Agenda 2030 and its SDGs; identifying targets and indicators of the SDGs; and, identifying SDG deliverables from developed and developing economies (Lee, 2017).

In terms of SDG-related events and activities, the PolyU has been holding its Campus Sustainability Week since 2013. During this week, PolyU's units in charge organize online sharing and workshops, update and promote related e-Resources, as well as special sustainability events and activities. Furthermore, in collaboration with three of the other public universities (CUHK, HKBU and CityU), the PolyU has been organizing a competitive award winning e-learning event called United Nations SDG International eTournament since 2019. The eTournament's goals to "enhance students' readiness to work in multi-disciplinary and multi-cultural settings via gamification and challenge-based learning...[and] raise awareness of the SDGs by engaging students of different cultural and academic backgrounds in a team-based eTournament composed of two stages. The students were prompted to strategize with their teammates on Moodle in stage 1. Then, students across the globe completed a SDG-related challenge in teams on a gamified platform called PaGamO" (PolyU-LF, 2021).

Case 4: The Chinese University of Hong Kong (CUHK)

CUHK greening initiatives

The CUHK has a dedicated unit for sustainability-related tasks. The "Campus Planning and Sustainable Office" is manned by one office director, two assistant directors for planning and sustainability, three sustainability officers, two campus planning officers, three project managers, and two administrative personnel (Xiong & Mok, 2020). Two are the CUHK's main networks for campus sustainability, namely the HKSCC that is common to all public universities and the Hong Kong Chapter of the United Nations' Sustainable Development Solutions Network (SDSN Hong Kong) that was co-founded in collaboration or under a direct guidance of the Hong Kong Government.

The CUHK relies on a Subgroup, which was established in 2013 and called "Global Policy Impact and Social Mission" (GPISM). The Subgroup is composed of several faculties, departments, colleges, and units in charge of engaging students in community service programs. Currently being paused due to the pandemic, GPISM's latest call for project applications for its five programs was in 2019. The program applicants should be at least one full-time student or academic staff, who would be the project fund holder. For one of the five programs with a direct link to the SDGs, the "CUHK Sustainable Development Goals Programme," the maximum funding per project allocated in 2019 was HKD 50,000, an equivalent to USD 6500 (CUHK, 2018).

CUHK sustainability sciences

The Subgroup GPISM also connected the CUHK's research capacities with international agencies. One of the notable research projects, "Effect of Land Cover Change on Litter Decomposition and Soil Greenhouse Gas Exchange in Hong Kong," aimed to recommend sustainable management strategies for the conservation of ecosystem services in urban areas, and it mainly covered the SDG 13 Climate Action and the SDG 15 Life on Land.

CUHK sustainability curricula

The CUHK co-organized and run the *United Nations SDG International eTournament* (see section "PolyU sustainability curriculum"). Through the Subgroup GPISM, students could participate in international experiential learning events, such as the World Universities Network (WUN) Summer School on Energy Transitions, which was held at the University of Alberta, Canada in July 2019.

As the sole university in the Sustainable Development Solutions Network Hong Kong (SDSN Hong Kong), the CUHK takes a leadership role and has a primary access to free massive open online graduate-level courses on sustainable development that are offered by the "SDG Academy." However, the SDSN Hong Kong was unable to expand its network to other public universities, which made possible involvement in the SDG Academy by other public universities clearly limited.

In the semester 2020–2021, the CUHK has introduced the 'SDG Study Scheme' to the freshmen students' general

education curriculum. Its goal was to create young leaders of sustainable development. The Scheme required students to take one short online course on the SDGs as a general introduction, three or more general education SDG courses, as well as partake in one or more SDG service/action activities (CUHK, 2020).

Case 5: City University of Hong Kong (CityU)

CityU greening initiatives

Reflected in their institutional motto in Latin 'officium et civitas' (job-duty and the city), CityU was founded in 1984 to cater for the Hong Kong young workforce, so that young Hongkongers and international students could obtain a university degree through part-time studies in professional fields, such as law and business. CityU portrays itself as a research university with global ambitions, thus, expanding its foundational spirit-mission and embracing global competitiveness and recognition.

Instead of having a sustainability office or unit, CityU has a "Sustainability Committee" under the office of the Provost. This Committee is composed of one chairman, six ex-officio members, eight academic representatives nominated by the deans of the colleges or schools, one co-opted member as principal investigator of the community of practice for sustainability, and one administrative officer (Xiong & Mok, 2020). Through the Committee, CityU networks with the HKSCC. CityU also belongs to the Hong Kong Chapter of the International Sustainable Campus Network ISCN (see section "CUHK Sustainability Initiatives"). It has a few smaller partnerships with the Business Environment Council, a charity promoting environmental sustainability of the local business sector, and the Jockey Club Carbon Care Open Innovation Lab for local climate innovation. As for global networks, CityU was associated with the World Bank's Connect4Climate and the Global Consortium for Sustainability Outcomes (GCSO). The GCSO included ten member universities with the Arizona State University as the chair and the website host. It was evident that the pandemic has paralyzed many of these CityU networks—the latest public involvement of the CityU in GCSO was dated back in 2018.

CityU sustainability sciences

With its recognized research capacity in the fields of law and business, CityU had strong research links to the key SDGs.

CityU sustainability curricula

CityU had a stream of learning from completed projects on sustainable assessment and geographical information system. The university also had campus-based SDGs

educational activities, as well as a website devoted to sustainability that introduced the SGDs and offered online academic articles and general information on the SDGs. CityU was a partner of the yearly participatory event of the "United Nations SDG International eTournament."

Case 6: Hong Kong Baptist University (HKBU)

HKBU greening initiatives

Turned into a public university in 1994 from the "Hong Kong Baptist College" in the 1950s, HKBU has a Christian foundational spirit. The THE Impact Rankings is stated by the HKBU as the main tool to calibrate their contribution to the SDGs. It was ranked 70 in the *THE Impact Rankings 2020*.

Instead of a sustainability office or unit, HKBU has a "Task Force on Sustainable Campus." The Task Force is formed by one task force convener, 17 members including academic and administrative personnel from 15 departments of HKBU, one student representative and one administrative officer (Xiong & Mok, 2020). HKBU belongs to the HKSCC, together with the other seven public universities, as well as to the Environmental Campaign Committee (ECC). The ECC was set up in 1991 by the executive power of the Hong Kong Government, and it had the main goal to promote public awareness of environmental problems.

HKBU sustainability sciences

In the 2018–2028 strategic plan, HKBU positioned itself as "a research-led liberal arts institution of global significance." The humanities and liberal arts are the main foci of HKBU's sustainability research, and these fields are the universities' main contributions to the 17 SDGs.

HKBU sustainability curricula

As a partner public university that has led the "United Nations SDG International eTournament" in 2019 and 2020, HKBU had an ad hoc website introducing the SDGs to students (HKBU, 2019, 2020). Also, HKBU had some unique sustainability curricular features, such as it was maintaining successful collaboration with the *UNESCO Hong Kong Association* and run a digital game-based learning project called CCGame. It was through CCGame that students of HKBU and other participating universities took part in the following three gamified challenge-based learning platforms, related to SDGs (HKBU-CCGame, 2020):

1. *PaGamO*: A scalable interactive war game, in which individual student players could expand their

territory or protect themselves against 'attacks' by answering SDG-related questions.

2. *HKBU Challenge Hub*: A team-based game, where student teams could choose one of the SDGs and develop ideas to solve sustainability-related problems.

3. *uReply*: A mobile game, which utilized a phone application as its mediated classroom interaction system.

Case 7: Lingnan University (LU)

LU greening initiatives

With the institutional motto of "Education for Service," LU considers liberal arts education as its main mission. There is no ad hoc university office or unit for campus sustainability initiatives. Yet, coordination tasks and networking with the Hong Kong Sustainable Campus Consortium HKSCC (until November 2020 when it joined the SDSN) were principally handled by the Office of the Comptroller, which is the office in charge of financial services and development/management of the campus physical infrastructure. Matters related to sustainability, from networking with HKSCC to providing SDG indicators/data to the THE Impact Rankings were handled by two appointed HKSCC representatives, one HKSCC working group member and one administrative officer (Xiong & Mok, 2020).

The Office of the Comptroller manages campus sustainability, but the range of initiatives appeared to be far narrower than the 17 SDGs. These targeted initiatives included collection of recyclable materials, energy saving in buildings, "Bring your own bottle" campaign to reduce the use of plastic, and indoor air quality management (LUCO, 2021).

In the Times Higher Education (THE) University Impact Rankings 2020, LU outstanded in the two specific SDGs, "No Poverty" and "Decent Work and Economic Growth," ranking 48th and 71st, respectively.

LU sustainability sciences

As a liberal arts focused university, LU's sustainability sciences research lies in the fields of humanities and social sciences, and covers a wide range of the SDGs.

LU sustainability curricula

LU's sustainability curricula was implemented mainly through Service Learning. A notable example of the "High-Flyers" program inculcated entrepreneurial mindset and leadership among students. In this program, individual students could receive a startup fund of HKD 10,000 (USD 1300) on top of a trip abroad (Lingnan, 2020). Students between their 3rd and 5th year of studies and from at least two different disciplines could choose any of the SDGs and relate their project to it. Another example was the "Joint Humanitarian Entrepreneurship Academy," in which LU students joined students from the Oberlin College, Carnegie Mellon University, and Rutgers University for a 2-week Hong Kong-based course, then to continue with a fortnight field work in developing countries, such as Uganda, Cambodia, Kazakhstan, and Nepal (LU, 2019).

These curricular experiences were presented at international conferences. In 2019, LU co-organized and hosted a conference of the Global Liberal Arts Alliance (GLAA) with the conference theme of "Humanitarian Innovation & Entrepreneurship: SDG Impact through Service-Learning." With university colleges, LU run an "Organized Service Learning" program for students, where young learners could gain first-hand experience in SDGs-related efforts in research and teaching.

Case 8: The Education University of Hong Kong (EdUHK)

EdUHK greening initiatives

Founded as an institute of education in 1994, the EdUHK became a university in 2016 under the auspices of the Hong Kong UGC. With teacher education as its main mission to the Hong Kong society, the EdUHK has been producing school teachers and conducting education research related to the SDG 4. The EdUHK is also known for its contribution to the SDG3, ensuring healthy lives and promoting well-being to all for all ages, through the Elderly Academy, which is devoted to lifelong learning education. The EdUHK had a dedicated website 'Sustainability@EdUHK' where it introduced the SDGs, and the related greening initiatives in/from campus, including some eLearning materials.

The EdUHK has no dedicated office or unit for sustainability-related reports and external networking. Such tasks were assigned to an existing center established in 2013, the "Center for Education in Environmental Sustainability." Its vision and mission was to "develop environmental education and sustainability studies in Hong Kong through the formation of research and knowledge transfer networks" (CEES, 2021). The Center has a center director, a center co-director, six executive committee members, 33 affiliated academic

Table 1 *The University Student Awareness of the SDGs (n = 47)*

	Questions	Responses(%)
1	SDGs are not only about environmental-friendly practices	77.9
2	SDGs are not mainly about environmental-friendly practices	37.69
3	Able to recognize 0–10 SDGs	64.3
4	Able to recognize 11–16 SDGs	27.1
5	Able to recognize all 17 SDGs	8.6
6	Have heard of any SDGs-related campaign held by their institutions	30.7
7	Would like to join any SDGs-related campaign held by their HEIs	34.8

staff, three administrative officers, and a pool of 32 research graduate students, some of them who have already graduated (CEES, 2021).

The EdUHK belongs to the HKSCC like all of the other seven public universities. Unlike other Consortium members, EdUHK displays close to nil international networking, including the SDSN and the THE Impact Rankings.

EdUHK sustainability sciences

Research output with direct and indirect links to the SDGs were sizable. Many of the output items were from academics affiliated to the "Center for Education in Environmental Sustainability." Nevertheless, given the wide scope of the 17 SDGs, it was rather impossible to single out a research that falls out of their broad range of SDGs-related programs and thematic areas. This phenomenon was common to all public universities, and it was due to the very nature of the 2030 Agenda.

EdUHK sustainability curricula

At the classroom level, SDG-related curricular content across all courses were not officially implemented. Due to an intensification in globalization and environmental discourses, however, the SD-related curriculum was embedded into many EdUHK courses. Courses exclusively about the SDGs were few, even in departments with specialisms and programs related to traditional SDGs, such as Environmental Sciences. The title and synopsis of a newly created three credit point course that introduced all of the SDGs to students in the Bachelor of Social Sciences (Honours) program in Global and Hong Kong Studies read:

1. Title: *The Sustainable Development Goals and Education*

2. Synopsis: *The Sustainable Development Goals (SDGs), articulated and accorded among the member states of the United Nations, are to be achieved by 2030. While the ongoing globalization influences all societal changes in the world, the seventeen SDGs set the course of action and moderate humankind's efforts for a viable development. Education with its knowledge production, workforce/citizen formation and community projection has a crucial role in the materialization of these goals in an array of developmental crucibles such as poverty, inequality, consumption and production patterns, environment, health, and culture. Drawing on multiple disciplines such as sociology, political science, cultural studies, economics and health-epidemiology, this course aims to provide students with multiple perspectives on local and international sustainable development processes and the multifaceted roles played by education to attain the SDGs….This course draws on a range of disciplines and perspectives to examine the positive roles that education plays in development: at the individual level, principally with regard to personal development; at the level of social and cultural development; at the level of national economic and political development; and at the level of global development, with regard not least to intercultural tolerance and peaceful coexistence, and to planetary stewardship.*

Although the synopsis claimed the course to be interdisciplinary with multiple perspectives, it displayed a content, which is centered in the SDG 4-Education. The curricular focus on the SDG 4 can be explained by its congruence with the main mission of teacher education.

Students about SDGs across public universities

The findings of a 2018 study on the youth awareness of the SDGs in the city (n = 504) conducted by The Chinese University of Hong Kong on behalf of the SDSN Hong Kong (CCPOS-CUHK, 2018) showed that only 14.5% of Hongkongers age 15–30 have ever heard about the SDGs. We,

researchers of the present study, built up on the SDSN study results and piloted a questionnaire instrument on the Hong Kong public university students about their awareness of the SDGs in April 2021. The descriptive non-generalizable findings presented in Table 1 revealed that a majority of the respondents perceived that the SDGs cover issues and areas beyond the environment (77.9%), whilst only a third of them knew that the environmental issues are not the main issue of the SDGs (37.69%). Most of the students were able to recognize only up to ten SDGs (64.3%), whilst less than a tenth of them recognized all 17 SDGs.

Asked whether they have ever heard about any SDGs-related campaigns or events held by their respective universities, the majority of students said that they were unaware of any such activities. Furthermore, only a third of them expressed interests in participating in SDGs-related future events.

In spite of the limited nature of the questionnaire, its results corroborate the findings of the CCPOS-CUHK survey (2018) that, at the level of general knowledge, Hong Kong public university students may continue to have insufficient knowledge of the 2030 UN SDGs. It is suggested that there may be a gap or fault line between the universities threefold effort to address the SDGs under the HEI Sustainability model features—Greening Initiatives, Sustainability Sciences, and Sustainability Curricula—and the actual sustainability consciousness ('ensoulment') in the public university students.

Discussion

Hong Kong public universities' sustainability-related institutional policies and actions predate the United Nations 2030 Agenda. This can be corroborated by the early introduction of campus greening initiatives and ad hoc offices/units, which were devoted to intra-institution monitoring, taking part in the inter-universities/international sustainability networks, and sustainability reporting. This could be explained, at least partially, by the fact that local public universities gained valuable knowledge from the *Millennium Development Goals* (United Nations, 2000) as well as from witnessing the international community's commitment over climate change in the Kyoto Protocol (1992) and the ensuing negotiations that ended in the Paris Agreement (2015).

In spite of a small number of Hong Kong public universities, their responses to the SDGs have been diverse as were the ways how public universities interact with the government and students as their key stakeholders in regard to the SDGs. Campus sustainability efforts to achieve the SDGs occur at different levels of university activities and structure, which this study grouped under the three main ways of advancing sustainability based on the *HEI Sustainability*

Model: Greening initiatives, sustainability sciences and sustainability curricula (Savelyeva, 2022a, 2022b, 2022d; Savelyeva & Douglas, 2017; Savelyeva & McKenna, 2011). The Model's three features are interrelated with fluid boundaries, which allow to explain, for instance, how sustainability research centers are seamlessly linked to the curriculum of certain post-graduate studies, which are, in turn, connected to a research lab and the university sustainability office in charge of community extension programs.

Given that 2030 SDGs Agenda was designed as an orientation rather than a checklist with hard deadlines, its implementation in public universities has also been flexible and adaptable. A discussion on Hong Kong public universities' reaction to the SDGs requires a structure with distinct thematic areas, yet, again, with interconnected and flexible boundaries. With this in mind, we offer a structured discussion with five thematic clusters (Stephens et al., 2008): (1) regional-dominant sustainability challenges; (2) financing structure and independence; (3) institutional organization; (4) extent of democratic processes; and (5) communication and interaction with society.

Regional-dominant sustainability challenges

A score of sustainability-related issues of the Hong Kong city, as it appeared in this study, are location-bound, yet, common to all eight public universities. We researchers submit that under the veneer of a very high per capita personal income, the main challenges to the city's sustainable development are unequal distribution of wealth, health hazards, and political instabilities.

The economic inequality and its effects on SDGs implementation is glaring in the city, where more than 1.37 million people out of its 7.5 million population live below the poverty line, and the Gini coefficient stands at the high 0.539 mark (Chik, 2020). Health hazards are also a dated problem in Hong Kong that affects HEI reaction to the SDGs. It is in Hong Kong that the pathogen causing the bubonic pest was discovered in the nineteenth century (China Mail, 1897). Indeed, the city has long been a crossroad of epidemics, such as the Avian flu, SARS and COVID-19, as the city is located in the Pearl River Delta where humans are in close contact with animals. The results of this research revealed that the current pandemic has drastically reduced the SDGs-related activities and events in Hong Kong public universities. Furthermore, the local political situation affects the SDGs, as it is in urgent need of deaccelerating polarization within the Hong Kong society. Yet, there are strong disagreements over the means to achieve it, either suppression or dialogue, altering traditional political mechanisms, such as the practice of public consultation and separation of powers, have now been questioned in the city.

Despite an important role that the public universities play in easing the tensions of wealth inequality, health hazard, and political instability, they cannot be the sole problem-solvers. Mapping these issues over the SDGs numbered grid of goals, the findings suggest that the Hong Kong public universities are currently vulnerable to the three goals—SDG 16 'Peace', SDG 3 'Health' and SDG 13 'Environmental actions.' The SDG 16 'Peace, justice and strong institutions' appears to be the most challenging one for the Hong Kong universities under the current social and political situation. At the same time, Hong Kong universities have contributed a great deal to alleviate the issues of health and wellbeing (SDG 3) and environmental actions (SDG 13) by inform-ing the Government and the public with scientific research and curricular initiatives (Savelyeva, 2018a, 2022a, 2022c, 2022e; Savelyeva & Fang, 2022; Savelyeva et al., 2019). However, these contributions were not enough to suspend a few environmentally detrimental constructions and mega-projects in the city. In terms of technology qua context, Hong Kong universities have generally enjoyed a rather high level of development and accessibility, keeping the new technolo-gies within the reach of ordinary people. Nevertheless, a digital divide of usage and a divide in cultural capital has been reported by university researchers (Cheng et al., 2015; Yuen & Park, 2012).

Financing structure and independence

A significant part of Hong Kong universities' advancement in and contribution to the sustainable development of the society and the universities themselves have depended on financing. Hong Kong public universities, under the auspices of the Hong Kong Government, have successfully attracted sponsorships from the business sector while strengthening the *esprit de corps* among the eight UGC-funded universi-ties through existing and new networks. While a blended public–private financing is a commonality of all public universities, the scale of financing has been distinct and has depended mainly on individual university's assessment of research performance.

The Hong Kong Government via the University Grants Committee (UGC) is the main funding source for the public universities, and it also encouraged universities to obtain external private financing for implementation of the SDGs. Since 2016–2017, however, all public universities were mandated to annually report on the 'Cost Allocation Guide-lines' to the UGC. According to the UGC, this monitoring and reporting mechanism, which is ongoing, is to ensure that there is no cross-subsidization of the UGC resources to non-UGC-funded activities (e.g. library/classroom use and lecturers' working hours). The 'Cost Allocation Guidelines' move sets the Hong Kong universities against the global trend of external/private funding (Stephens et al., 2008)

by tacitly discouraging non-UGC programs and indirectly cementing the role of the Government as the chief source of funding.

Given that only about 25% of the Hong Kong secondary school graduates have access to university education, the Hong Kong Government might need to consider increasing public university enrollment rate in favor of the local youth. It might need to expand the size of the HE sector in order to produce highly educated and sustainability-ensouled work-ers who benefit the city's knowledge-based and service-ori-ented economy, in a scale that should be comparable to the high enrollment rates of other countries in the Asia–Pacific region with similar socioeconomic standing.

Institutional organization

It is a commonality of Hong Kong public universities to perseive the SDGs as an opportunity for consolidating their strategies/actions, mobilizing the university communities, and leading the society to the next level of sustainable devel-opment. This research revealed that Hong Kong universi-ties leverage SDGs-related activities to gain regional and international visibility, recognition and prestige under the umbrella of community outreach and institutional interna-tionalization/globalization. For instance, activities related to corporate social responsibility are now aligned with and accounted for the SDGs. Furthermore, global sustainable development networks allow public universities to move beyond the usual constraints of inter-university memoran-dums of understanding without a clear goal and direction of internationalization.

The results of this research provide supporting evidence that the Hong Kong public universities are structurally tra-ditional and compartmentalized (Barnett, 2017), hence, disciplines and departments are to a certain extent bastions of sectional cultures that "prevent and dissuade cross-dis-ciplinarity and limit engagement outside the conventional academic circle" (Stephens et al., 2008, p. 327). Only one Hong Kong public university has an inter-disciplinary and cross-department subgroup to materialize SDG-related actions, namely, the CUHK's 'Global Policy Impact and Social Mission (GPISM).'

These results are consistent with those by Savelyeva (2012), and they underscore the problem that universities' traditional compartmentalized structure may potentially become a 'structural trap' for the SDGs-oriented efforts. Indeed, the traditional structure of Hong Kong public uni-versities challenges the SDGs-oriented attitudes and actions in the university community. Perhaps for this same reason, SDGs-related actions in Hong Kong campuses are more visible and often run through relatively new channels and formats such as digital game-based learning (CCGame by

HKBU), community outreach and experiential learning programs.

One of the participants of this study perceived that "more formal SDGs initiatives are usually less interesting" (Participant 1 interview notes). This bottom-up observation is consistent when reflecting on an observation of another participant that "the higher global ranking of a university, the more SDGs-related activities, events, and programs it offers, for example eTournament" (Participant 2 interview notes). Our study revealed that the internationally high ranked public universities in the study—HKU, CUHK and HKUST— fully integrated the SDGs through their academic studies programs, which were combined with non-academic activities and science laboratory practices. Nevertheless, as shown in the follow-up survey offered here, sustainability ensoulment-mindset of students might not necessarily reflect the types of SDGs-related efforts made by public universities.

Sustainability offices and units are a common feature of the sustainability implementation structure across all participating public universities. They perform the tasks of monitoring campus-based sustainability efforts and writing/submitting the SDGs reports, which are largely quantitative scores for university league tables such as the Times Higher Education. The latter requires every participating university to submit data on one compulsory SDGs and four elective SDGs for its 'University Impact Rankings by SDG'.

The findings on sustainability offices and units are consistent with the previous literature by Arroyo (2017), that campus sustainability assessment is a social construct elaborated by university stakeholders and it can serve to both reinforce sustainability and trigger change. The results of our research show that university sustainability offices and units were established prior to the 2030 SDGs Agenda and, they paved the way for sustainability-related changes in campuses by "reflecting, monitoring, comparing, and legitimizing" (Arroyo, 2017, p. 1763).

Highly functional sustainability offices and units do not discard the possibility of coexistence of 'structural trap' (Savelyeva, 2012) because a highly sophisticated and clustered structure with robust networks and public outreach can coexist with a mediocre sustainability consciousness and habits of people. In other words, there could be a mismatch between the campus sustainability reporting cum league tabling and an internalization or consciousness in people and their sustainability ensoulment.

Extent of democratic processes

Rather than 'democratic processes' (Stephens et al., 2008), our findings suggest that 'participatory processes' are more important for the SDGs-related initiatives in Hong Kong public universities. We researchers submit that the level of success in the global quest for the SDGs achieved by universities hardly could be attributed to a particular political system, but those noble goals are to be attained with the mass participation and commitment of people. We suggest that the SDGs are likely to be better achieved by what Karl Popper (2013/1965) coined as 'open societies,' instead of stereotyped political systems with 'democratic/socialist' labels. Popper defined 'open society' as a society "in which men have learned to be to some extent critical of taboos, and to base decisions on the authority of their own intelligence (after discussion)" (ibid., p. 513).

The findings of a 2018 study on the youth awareness of the SDGs in the city (CCPOS-CUHK, 2018) as well as our small scale follow-up survey suggest that university administration's strong commitments to the SDGs contrasts with the low knowledge about, comprehension of, and commitment to the SDGs by students and ordinary Hongkongers. This finding points at the longstanding problem of uniting 'instrumental' and 'intrinsic' educational goals for transforming educational practices and fostering sustainability mindsets in everyone involved in educational processes (Savelyeva, 2009, 2013, 2018b, 2022c).

At the university level, the implementation focus on the environmental component of sustainable development has strengthened the 'sustainability sciences' arm of the campus sustainability model and linked sustainability to the seemingly remote research fields, such as law, feminist studies and political sciences.

Communication and interaction with society

Our research findings suggest that the Hong Kong public universities tacitly set priority to institutional branding to stand out and get recognition (Jia & Park, 2022). Thus, their sustainability efforts align with developments of the local community. At least SDGs-wise, outreach actions have consistently been less than research and teaching. This finding is consistent with the results of Europe-based research on the direct and indirect influences of HEIs on society, the natural environment, and the economy conducted by Findler et al. (2019). The research team reported universities' weaker contribution in actions outside institutional boundaries.

Hong Kong public universities' affiliation to the Sustainable Development Solutions Network Hong Kong (SDSN Hong Kong) and Hong Kong Sustainable Campus Consortium (HKSCC) reflects communication and interaction across universities. This joint affiliation suggests a concerted effort to contribute to the SDGs by co-hosting, participating and exchanging experience.

The HKU and the HKUST address this notable lack of students' awareness and knowledge about the SDGs with lectures and workshops, which highlight the importance and significance of the 2030 SDGs Agenda. Finding

this mode of knowledge transfer insufficient, the CUHK turned to incentives such as scholarships, inter-university reward competitions, and credit-bearing community outreach activities. These tailored ways of fostering sustainability in universities go along with the direction of the newly emerged arena of 'Education for SDGs' (ESDGs) by "scale(ing) up existing activities and implement(ing) new types of activities that go beyond business as usual" (SDSN, 2021, p. 7).

It is possible that Hong Kong public university students may still have insufficient basic knowledge about the SDGs, which, in turn, could lead to a situation where they are poorly equipped to participate in the public debate—in a manner of the open society—concerning sustainable development.

Conclusion

Albeit in varying intensities, Hong Kong public universities have been reacting to the SDGs in a systemic and somewhat concerted way by implementing Greening Initiatives, Sustainability Sciences, and Sustainability Curricula. Since a significant amount of the SDGs-related actions have been paused or scaled down due to the COVID-19 pandemic, the Hong Kong public universities' adjustment to the global health crisis is doubtlessly a critical area of sustainable development (SDG 3). We reckon that the latter is an important direction for further and more focused research than the present one.

To conclude and based on the foregoing discussion, it could be suggested that an authentic attainment of the SDGs by Hong Kong public universities would need a salutary detachment from excessive concerns and priorities for superficial sustainability standards, and equally overt preoccupation for global university ranking league tables. We believe that the easiest and most efficient way to attach the SDGs in and from campuses could instead be through what universities know best and regard as their threefold mission—research, teaching and knowledge transfer—to produce global citizens with full ensoulment of the SDGs spirit and values, and thus, at the same time, turning universities into authentically sustainable institutions.

Declarations

Competing interests There are no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

Arroyo, P. (2017). A new taxonomy for examining the multi-role of campus sustainability assessments in organizational change. *Journal of Cleaner Production, 140*, 1763–1774. https://doi.org/10.1016/j.jclepro.2015.08.100

Barbier, E. B. (1987). The concept of sustainable economic development. *Environmental Conservation, 14*(2), 101–110.

Barnett, R. (2017). *The ecological university: A feasible utopia*. Routledge.

CCPOS-CUHK. (2018). *Hong Kong youth's opinion towards 'Sustainable Development'*. https://www.mocc.cuhk.edu.hk/images/content/event/2018/20180911/1807YouthSurvey.pdf

CEES. (2021). *Center for Education in Environmental Sustainability*. https://www.eduhk.hk/cees/view.php?m=50149&secid=50150

Cheng, M., Park, J., & Yuen, A. H. K. (2015). The influence of school and home cultural factors on the educational use of information and communication technology: A case study in Hong Kong. *Journal of Communication and Education, 2*(1), 12–20.

Chik, B. (2020). UN Sustainable Development Goals in Hong Kong: Myths & challenges. https://www.greenqueen.com.hk/un-sustainable-development-goals-in-hong-kong-myths-challenges/

China Mail. (1897, 30 June). *E.J. Eitel's 1896 report, Educational Department*. The China Mail.

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry & research design: Choosing among five approaches* (4th ed.). Sage.

CUHK. (2018). *CUHK Sustainable Development Goals Programme 2018–19*. The Chinese University of Hong Kong.

CUHK. (2020). SDG study scheme in the general education curriculum. https://sdg.oge.cuhk.edu.hk/en/

European Commission. (2020). *Education and training 2020 strategic framework*. European Commission.

Findler, F., Schönherr, N., Lozano, R., & Stacherl, B. (2019). Assessing the impacts of higher education institutions on sustainable development—An analysis of tools and indicators. *Sustainability, 11*(1), 59.

Fischer, F. (2003). *Reframing public policy: Discursive politics and deliberative practices*. Oxford University Press.

Gee, J. P. (2011). *An introduction to discourse analysis: Theory and method* (3rd ed.). Routledge.

HKBU. (2019). The United Nations SDG International eTournament (2019). http://ccgame.hkbu.edu.hk/sdg-etournament/

HKBU. (2020). The United Nations SDG International eTournament 2020. http://ccgame.hkbu.edu.hk/sdg-etournament2020/

HKBU-CCGame. (2020). The CCGame Project. Retrieved from http://ccgame.hkbu.edu.hk/

HKSCC. (2019). Hong Kong Sustainable Campus Consortium annual report 2018–2019. https://green.hkust.edu.hk/sites/green.prod01.ust.hk/files/multimedia/publications/REPORT2019.pdf

HKU. (2019). Sustainability report 2019. https://www.sustainabilityreport.hku.hk/2019

HKU-CC. (2020). HKU Common Core. https://commoncore.hku.hk/rationale/#ccst

HKU-CCSG. (2020). Hongkong and Shanghai Banking Corporation rural sustainability. https://www.estates.hku.hk/eo-general/sustainability

HKU-EO. (2019). The Estates Office—Sustainability management. https://www.estates.hku.hk/eo-general/sustainability

HKUST. (2021). HKUST connect. https://connect.hkust.edu.hk/about-us/objectives

HKU-Sustainability Office. (2019). Capturing HKU's contribution to the United Nations Sustainable Development Goals. https://202.189.124.92/tools/Capturing-SDGs

International Union for Conservation of Nature. (1980). *World conservation strategy: Living resource conservation for Sustainable Development*. IUCN–UNEP–WWF.

Jia, N. A., & Park, J. (2022). Institutional brand construct and university sustainability. In T. Savelyeva & G. Fang (Eds.), *Sustainable tertiary education in Asia: Policies, practices, developments*. Springer.

Lee, S. (2017). Fostering global citizenship through sustainable development goals: A 3-credit curriculum in general education for the sub-degree/degree sector. In *General education conference 2017: Evolution and transformation*. Hong Kong.

Lingnan. (2020). Lingnan High-Flyers Programme. https://www.ln.edu.hk/osa/highflyers

LU. (2019). Joint Humanitarian Entrepreneurship Summer and Winter Academy: Lingnan's Global Service Commitment. https://www.ln.edu.hk/osl/stories-and-news/joint-humanitarian-entrepreneurship-summer-and-winter-academy-overseas-service-learning-adventures-for-lingnan-students

LUCO. (2021). *Office of the Comptroller—Campus sustainability*. https://www.ln.edu.hk/cht/co/about/sustainability

Ministry of Environment of the Republic of Korea. (2019). *A report of Korean-Sustainable Development Goals (K-SDGs)*. Ministry of Environment, Commission on Sustainable Development.

PolyU. (2016). *Delegates of the faculty discuss the role of the university in the global city*. PolyU Faculty of Humanity Newsletter, 2016-2. http://www.polyu.hk/fh/en-us/newsletter_details/index/11

PolyU-LF. (2021). Learning framework—Co-curricular at home. https://www.polyu.edu.hk/proj/int/vrc/framework/interationalisation-initiatives/co-curricular-at-home/

Popper, K. R. (2013/1965). *The open society and its enemies* (5th ed.). Princeton University Press.

Sachs, J., Schmidt-Traub, G., Kroll, C., Lafortune, G., Fuller, G., & Woelm, F. (2020). *The Sustainable Development Goals and COVID-19. Sustainable development report 2020*. Cambridge University Press.

Savelyeva, T. (2009). *Global learning environment: Innovative concept and interactive model for changing academia and academics*. VDM Verlag Dr. Müller Aktiengesellschaft & Co.

Savelyeva, T. (2012). Escaping the "structural trap" of sustainability in academia through Global Learning Environment. In K. Bartels & K. Parker (Eds.), *Teaching sustainability* (pp. 231–241). Routledge.

Savelyeva, T. (2013). It's everybody's business: Addressing the challenge of team-teaching, partnership in Global Seminar. In L. Johnston (Ed.), *Higher education for sustainability: Cases, challenges, and opportunities from across the curriculum* (pp. 139–153). Routledge.

Savelyeva, T. (2018a). Stepping up the challenge: Fostering sustainability consciousness of Hong Kong students with New Senior Secondary Liberal Studies curriculum. In K. Kennedy & J. Lee (Eds.), *Routledge international handbook of schools and schooling in Asia* (pp. 740–756). Routledge.

Savelyeva, T. (2018b). Peace education in Anthropocene. In M. A. Peters (Ed.), *Encyclopedia of educational philosophy and theory* (pp. 1–5). Springer. https://doi.org/10.1007/978-981-287-532-7_593-1

Savelyeva, T. (2020). *Sustainability consciousness: Culture of conscious consumption, renewable and sustainable generation*. Paper presented at the Todos Sustentáveis: Encontros, mesas redondas e atividades inspiradasna agenda 2030 para os objetivos do desenvolvimento sustentável, Joiz De Fora, Brazil. http://y2u.be/5IB3qm3hQVc

Savelyeva, T. (2022a). In times of uncertainty: Advancing university sustainability model in Hong Kong. In W. Leal Filho (Ed.), *Handbook of sustainability science in the future*. Springer. https://doi.org/10.1007/978-3-030-68074-9_122-1

Savelyeva, T. (2022b). Towards a general framework of sustainable tertiary education. In T. Savelyeva & G. Fang (Eds.), *Sustainable tertiary education in Asia: Policies, practices, developments*. Springer. https://doi.org/10.1007/978-981-19-5104-6

Savelyeva, T. (2022c). Liberal studies reform and sustainability consciousness in Hong Kong tertiary education. In T. Savelyeva & G. Fang (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments*. Springer. https://doi.org/10.1007/978-981-19-5104-6

Savelyeva, T. (2022d). An introduction to the sustainability of tertiary education in Asia: Collaborations, transformations, global–local tensions, and future developments. In T. Savelyeva & G. Fang (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments*. Springer. https://doi.org/10.1007/978-981-19-5104-6

Savelyeva, T. (2022e). The influence of education and family systems on the sustainability values of Hong Kong university students. *Asia Pacific Education Review*. https://doi.org/10.1007/s12564-022-09786-1

Savelyeva, T., & Douglas, W. (2017). Global consciousness and pillars of sustainable development: A study on self-perceptions of the first-year university students. *International Journal of Sustainability in Higher Education, 18*(2), 218–241. https://doi.org/10.1108/IJSHE-04-2016-0063

Savelyeva, T., & Fang, G. (2022). *Sustainable tertiary education in Asia: Policies, practices, and developments*. Springer. https://doi.org/10.1007/978-981-19-5104-6

Savelyeva, T., Lee, S., & Banack, H. (Eds.). (2019). *SDG3 good health and wellbeing: Re-calibrating the SDG Agenda*. Emerald.

Savelyeva, T., & McKenna, J. R. (2011). Campus sustainability: Emerging curricula models in higher education. *International Journal of Sustainability in Higher Education, 12*(1), 55–66. https://doi.org/10.1108/14676371111098302

Savelyeva, T., & Park, J. (2012). Complexity of campus sustainability discourse. In W. L. Filho (Ed.), *Sustainable development at universities: New Horizons* (pp. 183–192). Peter Lang Scientific Publishers.

Savelyeva, T., & Rickards, S. (2017). Education for sustainability in higher education: The Asia-Pacific region. *International Journal of Sustainability in Higher Education, 18*(2), 166–170. https://doi.org/10.1108/IJSHE-10-2016-0193

SDSN. (2021). *Accelerating education for the SDGs in universities: A guide for universities, colleges, and tertiary and higher education institutions*. Sustainable Development Solutions Network.

Stephens, J. C., Hernandez, M. E., Román, M., Graham, A. C., & Scholz, R. W. (2008). Higher education as a change agent for sustainability in different cultures and contexts. *International Journal of Sustainability in Higher Education, 9*(3), 317–338. https://doi.org/10.1108/14676370810885916

UIS. (n.d.). Data for the Sustainable Development Goals. http://uis.unesco.org/

UN. (n.d.). History of the United Nations. https://www.un.org/en/about-us/history-of-the-un

UN HESI. (2017). Higher education institutions—Key drivers of the Sustainable Development Goals. https://sdgs.un.org/events/higher-education-institutions-key-drivers-sustainable-development-goals-28791

UNCED. (1992). *Agenda 21: Programme of action for sustainable development; Rio Declaration on Environment and Development; Statement of Forest Principles: The final text of agreements negotiated by governments at the United Nations Conference on Environment and Development (UNCED), 3–14 June 1992, Rio de Janeiro, Brazil*. United Nations Department of Public Information.

UNEP. (1972). *Stockholm declaration, 15 December 1972*. (A/RES/2994). UN General Assembly, United Nations Conference on the Human Environment.

United Nations. (2000). *United Nations Millennium Declaration. General Assembly resolution 55/2 of 8 September 2000.* United Nations Department of Public Information.

United Nations. (2015). *Transforming our world: the 2030 agenda for sustainable development a/RES/70/1*. United Nations Publishing.

United Nations World Commission on Environment and Development. (1987). *Report of the World Commission on Environment and Development: Our common future [Brundtland report].* 4 August 1987, A/42/427. United Nations.

USRN. (2021). University social responsibility network. http://www.usrnetwork.org/

Xiong, W., & Mok, K. H. (2020). Sustainability practices of higher education institutions in Hong Kong: A case study of a sustainable campus consortium. *Sustainability, 12*(2), 452. https://doi.org/10.3390/su12020452

Yanow, D. (2000). *Conducting interpretive policy analysis* (Vol. 47). Sage.

Yuen, A. H. K., & Park, J. (2012). The digital divide in education and students' home use of ICT. In Pixel (Ed.), *The future of education* (Vol. 1, pp. 366–370). Simonelli Editore University Press.