

## **Sustainability literacy: faculty, staff, and students as agents of change**

There is no doubt about the need for enhancing sustainability literacy among faculty, staff and students at the university level in the years and decades to come. Yet, despite this broad consensus and the need for higher education to equip students with the ability to understand and solve this century's many sustainability problems, it remains frustratingly difficult and rather ambiguous to articulate more precisely what enhancing such literacy means in practice. There is no standardization of program structure or curricula across sustainability in higher education (SHE) – and many would agree that such conformity would be undesirable – but this creates immense challenges for assessment and comparisons. There are no widely accepted scoring systems or checklists for measuring the effectiveness of courses or programs in advancing sustainability literacy. Despite the emergence of such tools as Sulitest to measure student progress (Décamps *et al.*, 2017), critics question the efficacy of such approaches (Kuehl *et al.*, 2021). Recently, in their critique of Sulitest, Kuehl *et al.* (2021) identified the more fundamental challenge for sustainability literacy as one of “coherence,” where “as others have suggested with the concept of sustainability itself, sustainability literacy may not exist as a coherent domain of knowledge” (Kuehl *et al.*, 2021, p. 5).

Despite such lack of coherence and the need to better enhance sustainability literacy, various groups within SHE are currently focused on better articulating competencies and learning outcomes and not building sustainability literacy. Therefore, while we applaud these efforts, we acknowledge that they address only a slice of the sustainability literacy challenge.

Given the above, in 2020, the Symposium “Sustainability Literacy: Faculty, Staff, and Students as Agents of Change” was organized to better understand the state of play in sustainability literacy. Hosted by the College of Charleston in Charleston, SC, USA, in February of that year, the transdisciplinary Symposium brought together lecturers, researchers and practitioners from a wide spectrum of the social and natural sciences, the humanities and other domains of higher education, representing sustainability-as-knowledge in the widest sense [1]. For purposes of the Symposium, sustainability literacy was broadly construed to include curriculum innovation, empirical work, activities, case studies and practical projects where sustainability is understood as the integration of three dimensions – environmental protection, economic development and social justice. Within this the literacy part was (and for purposes of this special section of the journal, is) “skills and knowledge” as a specific baseline and, for some, also includes competencies (Evans, 2019).

It was posited that to the extent to which sustainability literacy exists or is being practiced, it has not been sufficiently foregrounded and systematically articulated in higher educational learning settings. Thus, the invited presentations focused on the means, methods and processes via which sustainability awareness and literacy may be fostered and deployed, as tools via which those engaged with SHE can promote and support sustainability efforts, both within higher education and beyond. Indeed, “improving sustainability knowledge has long been central to international

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efforts to achieve sustainable development,” and this intent has been formalized in Target 4.7 of the Sustainable Development Goals which calls for action to “ensure all learners acquire knowledge and skills needed to promote sustainable development” (Kuehl *et al.*, 2021, p. 1).

The Symposium proceedings reinforced the notion that broader sustainability literacy will lead not only to increased awareness but also to improvements in both teaching and research programs. We agree with Kuehl *et al.* that perhaps we should not:

[...] place as much weight on measuring sustainability knowledge because it may not be something that exists in an empirically meaningful way. Instead, the focus could shift to improved measures of domain-specific components of what is currently under the umbrella of sustainability [...] [f]or example, knowledge measures of climate science, life-cycle assessment and environmental justice (Kuehl *et al.*, 2021, p. 5).

Moreover, some commentators have emphasized another aspect of sustainability literacy that is not susceptible to easy measurement, noting that enhanced sustainability literacy is coupled with “the recognition of the ‘complex’ nature of socio-environmental controversial issues: the multiplicity of perspectives, the issues of risk, and the dimensions of uncertainty” (Collucci-Gray *et al.*, 2006, p. 228). This stance, as presented by Collucci-Gray *et al.* (2006), essentially equates sustainability literacy to a “new perspective” based on an awareness of complexity and post-normal science that “corresponds to the development of a system of thinking which looks at connectedness, relationships, and context: ‘system thinking’” (Collucci-Gray *et al.*, 2006, p. 248).

Other researchers in the sustainability literacy space have looked beyond the formal curriculum in SHE to highlight the role of the so-called “hidden curriculum,” i. e. the potential of the university campus for experiential, place-based learning about and for sustainability (Winter and Cotton, 2012). The findings of Winter and Cotton (2012) suggest that extracurricular activities and on-campus facilities and operations “are overlooked as a potential influence on student learning and behavior.” They continue writing:

[H]elping students deconstruct the hidden campus curriculum may enhance aspects of sustainability literacy; developing students’ understanding about sustainability and creating solutions to sustainability issues, enabling evaluative dialogue around campus sustainability and also self-reflection (Winter and Cotton, 2012, p. 783, both quotes).

It is apparent that the key elements of sustainability literacy remain somewhat disputed (Stibbe and Luna, 2009). We resist, however, the suggestion that if sustainability means so many different things then it means nothing at all. Understanding the sustainability framework is critically important for addressing the “wicked problems” of our time – both for the general public and for policymakers. Therefore, a commitment to enhancing sustainability literacy, especially as it is conveyed in the SHE context, is vital to preparing the next generation of leaders and change agents.

The papers accepted, presented and discussed at the Symposium were submitted for inclusion in the *International Journal of Sustainability in Higher Education*, and this special section highlights six of these offerings. Taken together, we believe this set of articles advances the exchange of information, ideas and experiences acquired in applying sustainability literacy, especially with respect to successful initiatives and good practice. The Symposium organizers – the College of Charleston’s Sustainability Literacy Institute led by Todd LeVasseur, the Sustainability Curriculum Consortium founded by Ira Feldman and the Inter-University Sustainable Development Research Programme of

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Professor Walter Leal – are continuing their respective efforts to network the Symposium participants and provide a platform so they can explore the possibilities for further cooperation.

Guest editorial

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**963**

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1. The conference Webpage, the full agenda and images from the Symposium are archived at: [www.curriculumforsustainability.org/symposium-sustainability-literacy-faculty-staff-and-students-as-agents-of-change/](http://www.curriculumforsustainability.org/symposium-sustainability-literacy-faculty-staff-and-students-as-agents-of-change/) (accessed 8 July 2021).

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