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# The Global Goals: Bringing Education for Sustainable Development into U.S. Business Schools

Nancy E. Landrum
*Loyola University Chicago*, nlandrum@luc.edu



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# The Global Goals: Bringing Education for Sustainable Development into U.S. Business Schools

## Introduction

Business schools have been criticized for teaching outdated expertise and "leading the parade towards yesterday" (Denning, 2018), particularly with its focus on shareholder value and profit maximization (Levy *et al*., 2003; Mintzberg, 2004). There has been a longstanding call to transition the business school curriculum toward more responsible management practices, including sustainability (Ghoshal, 2005; Hart, 2009; Hesselbarth and Schaltegger, 2014; Landrum and Edwards, 2011; Nonet *et al*., 2016; Peoples, 2009; Pfeffer, 2005; Walck, 2009).

The benefits of teaching sustainability in management education have been proven (Cole and Snider, 2018; Kopnina, 2019; Miesing *et al*., 2017) yet the struggle to get sustainability education integrated into business school curricula in the U.S. continues to be well documented (Barber *et al*., 2014; Pesonen, 2003; Quian, 2013). Sustainability is a long-time politically charged partisan issue in the U.S. (Akadiri and Alola, 2019). The sensitivity of the issue of sustainability as a political concept is, perhaps, one of the reasons for resistance to the concept in American business schools. Another reason might be outdated perceptions consistent with Friedman's (1970) edict that the purpose of business is to make profit. Whatever the reason, transformational change is required (Dyllick, 2015)

Despite these challenges, the adoption of sustainability into the U.S. business school curriculum is on the rise, partly driven by the inclusion of sustainability into the standards of accreditation bodies and increased demand by students. For those business schools that have integrated sustainability into the curriculum, it has become a differentiating selling point (Scott, 2015). Those who lead the integration of sustainability into the management education curriculum are viewed as agents of change (Figueiro and Raufflet, 2015). While there are a variety of ways in which sustainability can be integrated into business school curriculum, the majority of schools that include sustainability in the management education curriculum teach outdated neoclassical concepts that position sustainability as a series of incremental improvements over business-as-usual, focus on doing less bad, motivate change by the business case for sustainability (such as improved profits, reduced costs, improved image and reputation, and improved ability to attract investors), and position the environment as a source of natural capital embedded within the economy (Landrum and Ohsowski, 2017). The struggle has been to challenge the outdated neoclassical approach toward sustainability and to adopt a more modern ecological worldview (Webster and Johnson, 2009). This view teaches that sustainability requires radical change from current practices, is motivated by the need to preserve our life support systems, and positions the economy as embedded within the natural environment (Landrum and Ohsowski, 2017). One such ecological worldview is the circular economy, a rapidly growing new approach toward sustainability. The circular economy adopts this latter view of the economy embedded within the environment and seeks ways to keep resources in use longer, reduce waste, and replenish natural systems. The circular economy approach in the curriculum was the focus of this study.

The purpose of this research was to understand how sustainability education, and circular economy specifically, are integrated into the curriculum at a Dutch university as one example of Education for Sustainable Development (ESD). The goal was to use the findings of the research to bring circular economy and sustainability education into the business school curriculum at U.S. universities to enhance ESD. Using an ethnographic approach, the author sought (1) to understand how the circular economy is being advanced in the curriculum through an approach that includes education, serious games, research, and work with industry stakeholders at a leading Dutch university for circular economy research and education and (2) to learn about cooperative interdisciplinary education and research on the circular economy at the Dutch university and its academic partners. The rest of this paper is organized as follows. The following section introduces the reader to the rationale for Education for Sustainability Development and the Sustainable Development Goals and then introduces the circular economy and its presence in management education. I then review the methodology of this ethnographic study and the themes that were observed over the four months spent at field sites. The next section presents a discussion of lessons that can be learned from these observations and how we can integrate the circular economy into management education curriculum through the broader, interdisciplinary, and holistic Sustainable Development Goals as a recommended approach toward Education for Sustainable Development that might offer a more amenable approach to integrate sustainability into U.S. business management education. Finally, I address the limitations of this case study and offer areas for further exploration.

## Education for Sustainable Development

Sustainability is the ability to continue in perpetuity. In today's context of sustainable development, we understand sustainability to mean the consideration of environmental, social, and economic impacts in decision making and actions so that present needs are met without compromising future needs. The United Nations Educational, Scientific, and Cultural Organization (UNESCO) has long been a proponent of environmental education as a necessary step toward sustainable development. The United Nations declared 2005-2014 the Decade of Education for Sustainable Development (ESD), an initiative to incorporate sustainability issues, such as climate change, cultural diversity, biodiversity, sustainable lifestyles, and more, into educational curriculum. The initiative targeted primary, secondary, and post-secondary education and sought to build capacities of educators while preparing youth to act on sustainability issues.

### *Sustainable Development Goals*

Member nations of The United Nations developed eight Millennium Development Goals to tackle the world's greatest challenges between 2000-2015. To continue this work, the seventeen Sustainable Development Goals were launched for 2015-2030 with the intent of "leaving no one behind." The Sustainable Development Goals (SDGs), also referred to as the Global Goals, challenge all member nations to address these 17 goals and the associated 169 specific targets for a more holistic and interdisciplinary approach toward sustainable development.

The current UNESCO ESD guidance document seeks to provide a roadmap for education to contribute to Sustainable Development Goal 4, to achieve quality and inclusive education, with a particular focus on Target 4.7: to equip students with the necessary knowledge and skills to take

responsibility for the future by promoting sustainable development (UNESCO, 2020). Higher education plays a key role in Education for Sustainable Development and achieving the Sustainable Development Goals, particularly SDG 4 and Target 4.7.

## Circular Economy

The circular economy is one approach toward achieving sustainability and is a fast-growing concept globally. The current movement to advance the circular economy is spearheaded by the Ellen MacArthur Foundation. Drawing on years of inspiration from related disciplines, the circular economy is a model to redesign our economic system to keep energy and materials in use for longer periods of time, thus reducing the demand for resources and the accumulation of waste, and to simultaneously regenerate natural systems. The model offers different pathways for biological materials and man-made materials, but both promote a circular (nonlinear) use of resources. The circular model of an economy can simultaneously support multiple Sustainable Development Goals to aid in the transition toward a sustainable future (Van Kruchten and Van Eijk, 2020), including Target 4.7 which aims to equip students with the knowledge and skills to build a sustainable future. This was the initial focus of the author: to integrate the circular economy into the business school curriculum to achieve Education for Sustainable Development.

The circular economy has been embraced by many nations, including Japan, China, Canada, India, Brazil, and Australia. The European Union (EU) adopted a Circular Economy Package that requires all 28 member countries to adopt circular economy targets between 2020-2030 (European Commission, 2015a, 2015b). Research on these efforts at national and municipal levels has concluded that to transition toward a circular economy, the most common practices are (1) more stringent waste regulations, (2) increased energy efficiency and greenhouse gas emissions reductions, (3) educational campaigns, and (4) collaboration among stakeholders (Weathers and Landrum, 2017).

The circular economy has not yet taken hold in the United States. Although national recycling and landfilling trends are static (United States Environmental Protection Agency, 2018), some states, cities, and companies are moving toward circular goals. In the United States, the states of California, Maine, and Vermont have adopted the most comprehensive statewide legislation in energy efficiency, emissions reductions, and waste regulation that will support the transition toward a circular economy (Nash and Bosso, 2013; Weathers, 2018). The cities of Austin, Boulder, New York, Phoenix, Chicago, San Francisco, and Dubuque are implementing more stringent waste regulations and working collaboratively between public and private sectors to support circular initiatives (Weathers, 2018). At the corporate level, Interface, a carpet manufacturer, is a leading example in the United States of earnest adoption of circular principles and goals. The circular economy can be implemented at all levels to support the global movement toward sustainable development.

### *Circular Economy in Management Education*

While there are early signs of uptake in states, cities, and companies, the topic of the circular economy is not yet prevalent in management research and education in the United States. In a search of the Business Source Complete database of peer reviewed research in academic

journals, the term “circular economy” first appeared with one publication in 2005 and has since grown to 517 publications in 2020. The same database revealed only 4 hits over that 15-year period when combining the search terms “circular economy” and “management education” and resulted in 4 hits over 15 years when the search terms were changed to “circular economy” and “business education.” In fact, in a study of business school curriculum where data was collected from U.S. business schools in 2012-13 to determine the readings that were most commonly assigned in introductory sustainable business courses, there were no circular economy readings identified at all (Landrum and Ohsowski, 2017). The circular economy is a nascent topic in both management research and management education.

The Ellen MacArthur Foundation (EMF) is seeking to address this lag through collaborations with higher education institutions to integrate circular economy into the university’s educational offerings, research, and operations. This network of universities offers circular economy-oriented research and curriculum, and most universities are in the EU (Forslund, 2018). As a result of the EMF collaborations, a wide variety of global offerings now include workshops, massive open online courses (MOOCs), certificate programs, and degree programs offered through this higher education collaboration with universities.

**Methodology**

The goal of this research was to understand how the circular economy is being advanced through the curriculum at a Dutch university and to learn about the university’s cooperative interdisciplinary partnerships with government and industry to advance the circular economy. This study took an ethnographic approach to answer the research questions. Ethnography is a case study of people and culture. Ethnography is an immersive approach that requires the researcher to be present among those being studied over an extended period, thus becoming both participant and observer (Denzin and Lincoln, 2011). This qualitative method allows the researcher to observe and interact with the subjects under study in their environment to acquire insights to understand beliefs and behaviors. Throughout this immersion process, extensive field notes are kept detailing observations and significant events. Ethnographic studies typically entail interviews of key informants who can provide in-depth knowledge of the topic under study. Ethnographic studies are enhanced through the collection of artifacts of the cultural group and studies may be complemented by quantitative data.

Among the advantages to using ethnographic methods are first-hand access to the daily routines and events of the topic or subjects under study; the method allows investigation of complex issues; and it allows for new hypotheses to evolve from the experience. However, disadvantages to using ethnographic methods include the inability to capture all events, observations, and data, and thus extra caution must be exercised to ensure a representative cross-sample; it is time consuming; researcher subjectivity can influence the participant observation experience and interpretation of events; the inability to control the context; the researcher’s presence can influence participants’ behavior; and the study is difficult to replicate, thus, findings may be specific only to the single study.

Ethnographic research methods are commonly used in educational settings and have been used in management education research (Mintzberg, 1973; Moore, 2011; Robinson and Shumar, 2014;

van Maanen, 1979). One of the earliest studies applying ethnographic research methods to the study of management was Mintzberg's (1973) seminal work, *The Nature of Managerial Work*. Mintzberg spent one week each with five chief executives to observe their work. Forty years later, Mintzberg's (2013) *Simply Managing* documented a day each observing 29 managers at all levels across a range of organizations. Both studies were for the purpose of improving our understanding of the work of managers. Ultimately, Mintzberg's studies have led to better informed education for future managers.

*Context*

Given the emphasis on the circular economy by the European Union (EU) and the eventual adoption by 27 neighboring countries of the EU Circular Economy package, Europe was the region chosen for study. The Ellen MacArthur Foundation (EMF) has developed a partnership with universities to create a higher education network of universities with circular-economy-oriented research and curriculum. I reached out to the partner universities located in the EU for discussions about this research and I finally chose a university in the Netherlands as the site for this study. The Netherlands stands out globally as the country with the most universities engaged in circular economy teaching (Forslund, 2018).

I went to the host university with two research questions in mind: (1) to understand how the circular economy is being advanced through education, serious games, research, and work with industry practitioners and (2) to understand cooperative interdisciplinary education and research between universities. Working with various stakeholder groups and adopting interdisciplinary approaches are two hallmarks of Education for Sustainable Development (ESD). To accomplish my research goals, I spent a semester at a host university in the Netherlands (from mid-January through mid-May 2018) to engage with colleagues, observe, and learn. The anticipated outcome of this residency was to gain knowledge that could be brought back to the U.S. as a model for integrating sustainability and the circular economy into business school curriculum ESD.

*Data Collection*

Data collection followed Howell's (1972) four steps for ethnographic participant-observation research: (1) establishing rapport, (2) immersion in the field, (3) recording observations, and (4) analyzing data into themes or narratives.

Establishing rapport. As a newcomer in this context, time was spent establishing rapport with those I met. However, as a member of the academy, establishing rapport was made easier as I was immediately welcomed by colleagues and accepted as knowledgeable and equal. I attended meetings and events through which I met many faculty, students, and practitioners and individuals were trusting and forthcoming with information. In fact, on my first day, I was invited to sit in on a thesis defense and to join the evaluators for their assessment discussion following the defense.

Immersion in the field. Fieldwork began at the host university in the Netherlands, however, through referrals and introductions, I quickly engaged with two other universities, two centers affiliated with these universities, the associated faculty at all three universities who were engaged

in sustainability work, their students, and local businesses engaged in sustainability. This referral process to additional knowledgeable key informants resulted in snowball or chain sampling (Goodman,1961). It was a very rich environment that allowed interactions with 11 faculty, 4 individual students, 1 classroom observation, 9 practitioners, 4 sustainable business tours, 2 university-sponsored public events related to sustainable business that represented 6 speakers, and acquisition of printed materials received through these interactions, thus allowing for engagement with multiple stakeholders representing a cross-section of those who contribute to ESD.

Recording observations. Most of the field data was collected from observations and notes from informal discussions. Detailed field notes were collected using participant observation, direct observation, unstructured face-to-face interviews of knowledgeable key informants, and notes from collective discussions through meetings, attendance at public presentations, and public artifacts acquired. The context was rich and provided a wealth of knowledge from experienced individuals to help me understand how they were teaching the circular economy to students and how they were advancing the circular economy through research and interaction with each other, government, and business. It was immediately apparent that all three universities had numerous research projects underway to address the practical challenges of implementing the circular economy for federal and city governments while some of the projects were with local businesses. One faculty member shared that, in teaching and research, "We look at skills for the 21st century and look for public and private shared value to solve societal challenges."

Analyzing data into themes or narratives. At the conclusion of my four-month visit, the field notes were reviewed and coded according to concepts and topics. This allowed the use of a card sort technique to group related concepts and topics which revealed the following categories (Cataldo *et al*., 1970; Nielsen, 1995; Spencer, 2004, 2009).

1. *Collaboration* - There was extensive collaboration observed within and between universities and between academia, government, and industry. The two centers were the best examples of collaboration as they worked both inside and outside academia on education and research to advance knowledge on the circular economy through both curriculum and research. There were multiple examples of research collaborations between the universities and government to provide research and planning for the transition to a sustainable future, such as the meeting I attended between a faculty researcher and an individual in federal government procurement discussing research to develop and implement initiatives related to the circular economy, smart cities, and green transport. Yet another faculty member described his research work as "a collaboration between academia and industry." Collaboration was evident in every aspect of my observations over the 4-month period.
2. *Applied transdisciplinary work* - Most research was practical and applied to help address a government or business challenge; in fact, the goal of research and universities seemed to be to engage with society and to use their knowledge and skills to help address societal challenges. One faculty member stated that their work sought public and private value. Due to the collaborative applied focus of work being done at these universities, the work is necessarily transdisciplinary and interdisciplinary. This was again demonstrated through the work of the centers but also in the work of faculty outside these two centers. One professor stated that "Business schools have a compact with society; engagement

with society is what we need to teach. It doesn't matter if you're liberal or conservative, our sustainability challenges are universal."

3. *Sustainable Development Goals* - There were multiple opportunities to discuss the circular economy, but on many occasions, the circular economy was embedded within a larger discussion as part of sustainability and the United Nations' Sustainable Development Goals (SDGs). On visits to each university, the SDGs were prominently displayed and promoted as an important component of their work in research, teaching, and service. Additionally, it was not uncommon to see the SDGs displayed at various businesses throughout the region. One colleague stated that "sustainability should be framed around the Sustainable Development Goals because it has a broader focus, is more inclusive, and is less threatening."
4. *Innocuous sustainability* – An important observation outside the United States is that the term "sustainability" is as innocuous as "healthy" or "educated", it has no political overtones or negative connotation. In conversations with students, faculty, and business leaders, there was general support for sustainability as part of the culture and lifestyle of the Dutch. In a discussion of the political nature of sustainability in the U.S., one faculty member advised that my work should "Avoid the sustainability and circular economy rhetoric."
5. *Urban sustainability* - There was much greater emphasis on urban/municipal sustainability than on corporate sustainability. I did encounter two faculty members engaged in teaching and research related to sustainable business models and practices. One of these faculty members stated that their research work is to identify "how companies can add value to solve societal challenges." The remaining individuals encountered during my stay were engaged in teaching, research, and collaborations focused on helping cities and governments become more resilient and prepare for the transition to a sustainable future, for example, questions such as "how are cities similar in the sustainability challenges and opportunities they face?" and "how can circular Amsterdam translate to other cities?" were common. Urban sustainability is a mutual focus of the university centers. In speaking with one faculty member about my research and my intent to transfer knowledge back to the U.S., he advised a different approach focused on cities instead of businesses, "Academics are important in helping cities address 21$^{st}$ century challenges."
6. *Transition research* - Many academicians were engaged in "transition research" to help identify how to transition toward sustainability and, more importantly, how to speed up the transition process. Again, most discussions of transition were at the level of the city. It was observed by one individual that "we need to understand the fast dynamics of change" to enable this transition.
7. *Legislative enablers* – In the Netherlands, sustainability is embraced at the federal level and legislation has been put in place to enable the transition. The European Union has adopted legislation that requires all member countries to adopt circular planning and goals no later than 2020 (European Commission, 2015a, 2015b). The Netherlands began its work in 2016 by targeting biomass and food, plastics, manufacturing, construction, and consumer goods (Government of the Netherlands, 2016). The country is anticipating a full transition of the economy by 2050 (Government of the Netherlands, 2016). One faculty member stated that, "We need to focus on the conditions, incentives, and enablers to make the transition. And that comes down to policy."

These seven themes illustrate an approach toward Education for Sustainable Development that is innovative, interdisciplinary and engages multiple stakeholders, and is holistic. The approach was innovative in its collaboration and applied nature with government, cities, and businesses which is in contrast to what I have observed in the U.S. in which the curricular approach is very siloed and much less collaborative and applied. The approach was interdisciplinary and engaged multiple stakeholders, such as academia, government, and business and industry, in seeking solutions for sustainability transitions. Finally, the approach was holistic in its emphasis on working together to achieve the Sustainable Development Goals rather than a focus on a singular component of sustainability.

**Discussion and Implications**

The goal of this study was (1) to understand how the circular economy is being advanced through education, serious games, research, and work with industry practitioners and (2) to understand cooperative interdisciplinary education and research between universities. This case study would serve as one example of Education for Sustainable Development. Following four months of interaction with Dutch academic and business colleagues, the following lessons can be gleaned from my observations and the themes that emerged.

1. Lesson 1: Sustainability needs to be integrated into culture and lifestyle beginning with early education; this neutralizes the politically charged terminology. Further, this early education needs to incorporate sustainability science, ecological science, and systems theory. This confirms observations made by Landrum and Ohsowski (2017) in which a German academic colleague stated that they do not offer an introductory sustainable business course because it is so ingrained as part of the culture and lifestyle by the time students reach college; "Environmental education begins in nursery schools and primary schools and plays an essential role in the awareness of sustainable development" (City of Freiburg im Breisgau, 2016, p. 23). In the Netherlands, the country's "Learning for Sustainable Development" program ensures all individuals (in the educational system), organizations, and society understand and contribute to sustainable development (Program Learning for Sustainable Development, 2011). This reflects the country's commitment to Education for Sustainable Development.
2. Lesson 2: Legislative regulation will hasten the transition since voluntary adoption proceeds at a slower pace. Studies comparing voluntary or self-regulation versus government regulation show that when there are (real or perceived) financial penalties by taking action to be socially responsible, companies will choose not to act, thus government regulation is the best approach to change firm behavior (Karnani, 2011; Shavell, 1994). In fact, Karnani (2011) states that the primary role of government is to force companies to change for the public interest.
3. Lesson 3: Focusing on urban sustainability puts the city as the primary focus and will allow cities to create favorable conditions for individuals, businesses/organizations, and governments to make a successful transition toward sustainability, particularly if supported by legislation that enables the transition. In business schools, the focus, understandably, has been on corporate sustainability, but the addition of urban

sustainability in the curriculum could broaden students' interdisciplinary knowledge of sustainability and present a more comprehensive view of sustainability.

4. Lesson 4: The SDGs serve as a template or guide for cities, businesses, nongovernmental organizations, universities, and educational curriculum. A focus on the SDGs is broad, inclusive, and interdisciplinary. However, the SDGs are not without critics. In fact, Kopnina, (2017, p. 1268) studied SDG teaching in the Netherlands and expressed "concern that the outcomes of the SDGs might be harmful to the advancement of environmental and social sustainability" due to its emphasis on growth. Other critics argue that the SDGs are not inspirational and do not provide the guidance needed to achieve the global goals and eradicate poverty because they lack specificity, strong language, and metrics (Pogge and Sengupta, 2015). Some argue that the SDGs' pursuit of sustainable economic growth is oxymoronic (Hickel, 2015; Kopnina, 2017). Hickel (2015) finds the SDGs to be contradictory and self-defeating by maintaining wealth and power with the global 1% as the approach toward reducing inequality and the Bill and Melinda Gates Foundation has also publicly stated its dissatisfaction with the SDG approach toward reducing poverty and inequality (Paulson, 2015). Finally, the Copenhagen Consensus Center (2015) concluded that of the 169 targets of the SDGs, only 19 of them will result in significant benefits and should be pursued. Nonetheless, the U.N. SDGs are a global effort to address 17 goals to move us further in the direction of sustainable development and are being adopted by universities, businesses, governments, and nonprofit organizations around the world.
5. Lesson 5: Collaboration is key and universities, including business schools, should focus on using knowledge to serve the greater good (making academic research and practice relevant to real needs). It has long been stated that sustainability is a transdisciplinary issue that requires everyone's involvement.

Through the observations, themes, and lessons learned, the Sustainable Development Goals held more prominence that the circular economy. Much like the circular economy, the SDGs have not yet been widely adopted in the U.S. (Pipa and Brown, 2019). In fact, as of this writing, the U.S. is the only OECD and G-20 country that has not reported on SDG progress (Pipa and Brown, 2019). To the author's surprise, a focus on teaching the circular economy was NOT the best way to introduce sustainability into the business school curriculum at this Dutch university. From the lessons learned in this study, the author shifted focus from adding a circular economy class into the business school's curriculum and instead turned to adding a class on the Sustainable Development Goals into the curriculum. Thus, the original research plan was to integrate sustainability into the business school curriculum through the development of a circular economy class, but the results of the project created a shift in the focus to integrate sustainability into the business school curriculum through the development of a Sustainable Development Goals class.

There are several benefits to teaching sustainability through the lens of the Sustainable Development Goals. First, by expanding the focus away from the circular economy and toward the Sustainable Development Goals, two opportunities arise for U.S. business schools. First, inclusion of the SDGs can aid schools in meeting accreditation requirements that call for the

integration of social and environmental responsibility and sustainability content (AACSB, 2020). Second, inclusion of the SDGs can aid schools in carrying out the Principles for Responsible Management Education (PRME) for those schools that have become signatories (UN Global Compact, 2007).

Second, the broader focus is more closely aligned with Education for Sustainable Development (ESD) and can help us achieve Sustainable Development Goal Target 4.7 to equip students with the necessary knowledge and skills to address sustainability issues. UNESCO (2002) has recognized that a sustainable future begins with education, training, and public awareness. From this perspective, ESD seeks a viable and equitable future for all and eliminates the emphasis, for students and faculty alike, on forcing businesses to change. Rather, consistent with the lessons learned in this study, business becomes a supporting player in a holistic societal approach that can help all life flourish.

Third, the broader interdisciplinary focus on the SDGs allowed the author to act on the aforementioned five lessons learned in a concrete way. Given the broad nature of the SDGs, a class on the SDGs will allow students to see how sustainability is woven through the fabric of our environment, society, and economy (Lesson 1). The SDGs also allow students to see the differing impact of voluntary versus legislative action (Lesson 2). By focusing on urban sustainability, students can see how businesses must play their part in contributing to the city's success (Lesson 3). This approach allows students to see how the SDGs serve as a template for action across all types of entities, not just corporations (Lesson 4). And finally, by virtue of SDG 17 Partnerships, students will also realize that collaboration is key (Lesson 5).

The practical implication of this research is that shifting toward a broad introduction of the Sustainable Development Goals in the management education curriculum can help U.S. business schools move toward Education for Sustainable Development. Additionally, incorporating the SDGs into the business school curriculum could present an opportunity to introduce sustainability in a way that is more holistic and interdisciplinary, and which could reduce resistance in U.S. business schools toward the notion of sustainability in the business school curriculum. However, this question remains to be tested in future research.

**Limitations and Future Directions**

One of the limitations of this research is that it was a case study of a single university and its two regional academic collaborators in the Netherlands, its approach toward teaching the circular economy to advance the Sustainable Development Goals and ESD, and its partnerships with other universities, businesses, and municipal and national governments. There are questions about the generalizability of the findings from one case study to a wider population of universities.

Another limitation is, of course, transferability across cultures. It is acknowledged that the topics addressed in sustainability management education vary across countries and cultures (Huang and Wang, 2013). While the approach outlined here was successful in the Netherlands, there are questions about whether the lessons learned at universities in the Netherlands can transfer to universities outside the Netherlands, particularly in the United States or other countries where the

topic of sustainability is highly politicized, it is not part of the culture and lifestyle, and where ESD is not well integrated into primary or secondary education.

Finally, this research raises several questions for future research.

1. Will the introduction of the SDGs into the business school curriculum lead to increased adoption of sustainability? That is, as students and faculty become more aware of the Sustainable Development Goals, can we expect to see increased adoption of more sustainable lifestyles or work behaviors and an increased focus on sustainable development as per SDG Target 4.7? Will the business school itself begin to model sustainable operations?
2. Will a focus on SDGs lead to increased engagement with society? That is, as students and faculty become more aware of the Sustainable Development Goals, can we expect to see faculty research, class projects, and business schools become more engaged with those off-campus in a more practical sense?
3. Will a focus on SDGs lead to wider acceptance of sustainability in business schools and management education, particularly in the United States where the topic has been intensely politicized as a partisan issue? That is, if faculty and students increase their awareness of the Sustainable Development Goals, would additional sustainability classes be added to the curriculum, both within and outside the management discipline?

**Conclusion**

This research was conducted to determine how the circular economy was being integrated into the curriculum at a Dutch university and to learn about the university's approach toward cooperative education and research with two other universities. The goal was to bring circular economy education into the business school curriculum of universities in the United States. Through ethnographic fieldwork and participant observation, the author spent a semester visiting three universities in the Netherlands and collected data from observations, colleague meetings, classroom meetings, public presentations, public artifacts, public events, and business tours. Several themes emerged from the data: collaboration between multiple stakeholders, applied transdisciplinary work to address real challenges, the Sustainable Development Goals as a template for sustainable development, sustainability as an innocuous and uncontested concept, urban sustainability as the focus, research to understand transitions toward sustainability, and legislative enablers. Collectively, these themes support the successful implementation of Education for Sustainable Development at the universities and support the transition toward a sustainable future. In reviewing this data, the following insights were gained from the observations and themes: (1) sustainability needs to be integrated into culture and lifestyle, (2) legislative regulation will hasten the transition toward sustainability, (3) a focus on urban sustainability provides a more comprehensive approach, (4) the Sustainable Development Goals are a broader, more holistic, and interdisciplinary template for sustainability at all levels, including management education, and (5) collaboration is key.

Armed with this knowledge, the author suggests that instead of a class focused on the circular economy, the Sustainable Development Goals can provide an broader overarching framework that not only addresses environmental and economic sustainability but is more inclusive of social sustainability and promotes ESD. Furthermore, the SDGs adopt a collaborative approach across

multiple levels (businesses/organizations, cities, government) thus enabling students to see the importance of legislative regulation in helping us achieve the SDGs (and sustainability). This approach could be a model for implementation across U.S. business schools as one way to present sustainability in a less politically charged yet inclusive way and that will help achieve accreditation requirements. Shifting the emphasis toward the Sustainable Development Goals allows for a global focus that could be applicable to all countries and cultures. This model of integrating sustainability into the curriculum through the SDGs can be used at any level of education and in any discipline to support a more holistic and inclusive approach that promotes a viable and equitable future for all. Finally, integrating the Sustainable Development Goals into the business school curriculum can help advance Education for Sustainable Development and achieve SDG Target 4.7: to "ensure that all learners acquire the knowledge and skills needed to promote sustainable development" (United Nations, 2015, p. 17).

**References**

AACSB (2020), *2020 Guiding Principles and Standards for Business Accreditation*, available at: https://www.aacsb.edu/-/media/aacsb/docs/accreditation/business/standards-and-tables/ed22020%20aacsb%20business%20accreditation%20standards%20%20final%20%20pdf%20for%20release%20%2002032020.ashx?la=enandhash=62E26CF8B3D1836BE46BB08F51C1AD57A748E54E (accessed 24 October 2020).

Akadiri, S. and Alola, A. (2019), "The role of partisan conflict in environmental sustainability targets of the United States", *Environmental Science and Pollution Research International*, Vol. 27 No. 10, pp. 10265-10274.

Barber, N., Wilson, F., Venkatachalam, V., Cleaves, S. and Garnham, J. (2014), "Integrating sustainability into business curricula: University of New Hampshire case study", *International Journal of Sustainability in Higher Education*, Vol. 15 No. 4, pp. 473-493.

Cataldo, E., Johnson, R., Kellstedt, L., and Milbrath, L. (1970), "Card sorting as a technique for survey interviewing", *Public Opinion Quarterly*, Vol. 34, pp. 202-215.

City of Freiburg im Breisgau (2016), *Green City Freiburg: Approaches to Sustainability*, available at: https://www.freiburg.de/pb/site/Freiburg/get/params_E256863245/640888/Green-City-Brochure_English.pdf (accessed 21 October 2020).

Cole, R. and Snider, B. (2018), "Managing in turbulent times: The impact of sustainability in management education on current and future business leaders", *Journal of Cleaner Production*, Vol. 210, pp. 1622-1634.

Copenhagen Consensus Center (2015), *Post-2015 Consensus: Smart Development Goals*, available at: https://www.copenhagenconsensus.com/sites/default/files/expert_outcome_one_pages_combined.pdf (accessed 21 October 2020).

Denning, S. (2018, May 27), "Why today's business schools teach yesterday's expertise", *Forbes*, available at: https://www.forbes.com/sites/stevedenning/2018/05/27/why-todays-business-schools-teach-yesterdays-expertise/#6444c8b9488b (accessed 21 October 2020).

Denzin, N. and Lincoln, Y. (2011), *The SAGE Handbook of Qualitative Research* (4th ed.), SAGE Publications, Ltd., Thousand Oaks, CA.

Dyllick, T. (2015), "Responsible management education for a sustainable world: The challenges for business schools", *Journal of Management Development*, Vol. 34 No. 1, pp. 16-33.

European Commission (2015a), *Closing the Loop - An EU Action Plan for the Circular Economy*, available at: https://eur-lex.europa.eu/resource.html?uri=cellar:8a8ef5e8-99a0-11e5-b3b7-01aa75ed71a1.0012.02/DOC_1andformat=PDF (accessed 21 October 2020).

European Commission (2015b), *Annex 1*, available at: https://eur-lex.europa.eu/resource.html?uri=cellar:8a8ef5e8-99a0-11e5-b3b7-01aa75ed71a1.0012.02/DOC_2andformat=PDF (accessed 21 October 2020).

Figueiro, P. and Raufflet, E. (2015), "Sustainability in higher education: A systematic review with focus on management education", *Journal of Cleaner Production*, Vol. 106, pp. 22-33.

Forslund, T. (2018), *A Global Snapshot of Circular Economy Learning Offerings in Higher Education*, Ellen MacArthur Foundation, Isle of Wright, England, available at: https://www.ellenmacarthurfoundation.org/assets/downloads/Global-Snapshot.pdf (accessed 21 October 2020).

Friedman, M. (1970, Sept. 13), "The social responsibility of business is to increase its profits", *The New York Times Magazine*.

Ghoshal, S. (2005), "Bad management theories are destroying good management practices", *Academy of Management Learning and Education*, Vol. 4 No. 1, pp. 75-91.

Goodman, L. (1961), "Snowball sampling", *Annals of Mathematical Statistics*, Vol. 32 No. 1, pp. 148-170.

Government of the Netherlands (2016), *A Circular Economy in the Netherlands by 2050*, available at: https://www.government.nl/binaries/government/documents/policy-notes/2016/09/14/a-circular-economy-in-the-netherlands-by-2050/17037+Circulaire+Economie_EN.PDF (accessed 21 October 2020).

Hart, S. (2009), "Converging on green", *BizEd*, Vol. 8 No.4, pp. 24-28.

Hesselbarth and Schaltegger, S. (2014), "Educating change agents for sustainability – learning from the first sustainability management Master of Business Administration", Journal of Cleaner Production, Vol. 62, pp. 24-36.

Howell, J. (1972), *Hard Living on Clay Street: Portraits of Blue Collar Families*, Waveland Press, Inc., Prospect Heights, IL.

Hickel, J. (2015), "The problem with saving the world", *Jacobin*, available at: https://www.jacobinmag.com/2015/08/global-poverty-climate-change-sdgs/ (accessed 21 October 2020).

Huang, S. and Wang, Y. (2013), "A comparative study of sustainability management education in China and the U.S.A", *Environmental Education Research*, Vol. 19 No. 1, pp. 64-80.

Karnani, A. (2011), "'Doing well by doing good': The grand illusion", *California Management Review*, Vol. 53 No. 2, pp. 69-86.

Kopnina, H. (2017), "Teaching Sustainable Development Goals in The Netherlands: A critical approach", *Environmental Education Research*, available at: https://doi.org/10.1080/13504622.2017.1303819 (accessed 21 October 2020).

Kopnina, H. (2019), "Green-washing or best case practices? Using circular economy and Cradle to Cradle case studies in business education", *Journal of Cleaner Production*, Vol. 219, pp. 613-621.

Landrum, N. and Edwards, S. (2011), "Is strategic management (still) responsible for the demise of society?", *International Journal of Business Insights and Transformation*, Vol. 3 No. 3, pp. 62-69.

Landrum, N. and Ohsowski, B. (2017), "Content trends in sustainable business education: An analysis of introductory courses in the U.S.A.", *International Journal of Sustainability in Higher Education*, Vol. 18 No. 3, pp. 385-414.

Laurie, R., Nonoyama-Tarumi, Y., McKeown, R., and Hopkins, C. (2016), "Contributions of education for sustainable development (ESD) to quality education: A synthesis or research", *Journal of Education for Sustainable Development*, Vol. 10 No. 2, pp. 226-242.

Levy, D., Alvesson, M., and Willmott, H. (2003), "Critical approaches to strategic management", in Alvesson, M. and Willmott, H. (Eds.), *Studying Management Critically*, Sage, Newbury Park, CA, pp. 92-110.

McKeown, R. (2000), *Education for Sustainable Development Toolkit*, Waste Management Research and Education Institution, University of Tennessee, Knoxville, TN.

Miesing, P., Krzykowski, L., and Rich, E. (2017), "Enabling sustainability in management education", in Arevalo, J. and Mitchell, s. (Eds.), *Handbook of Sustainability in Management Education: In Search of a Multidisciplinary, Innovative and Integrated Approach*, Edward Elgar Publishing, Northampton, MA, pp. 539-566.

Mintzberg, H. (1973), *The Nature of Managerial Work*, Harper and Row, New York, NY.

Mintzberg, H. (2004), *Managers not MBAs: A hard look at the soft practice of managing and management development*, Berrett-Koehler Publishers, San Francisco, CA.

Moore, F. (2011), "Holistic ethnography: Studying the impact of multiple national identities on post-acquisition organizations", *Journal of International Business Studies*, Vol. 42, pp. 654-671

Nash, J. and Bosso, C. (2013), "Extended producer responsibility in the United States: Full speed ahead?", *Journal of Industrial Ecology*, Vol. 17 No. 2, pp. 175-185.

Nielsen, J. (1995), "Usability testing for the 1995 Sun Microsystem's website", available at: https://www.nngroup.com/articles/usability-testing-1995-sun-microsystems-website/ (accessed 21 October 2020).

Nonet, G., Kassel, K., and Meijs, L. (2016), "Understanding responsible management: Emerging themes and variations from European business school programs", *Journal of Business Ethics*, Vol. 139, pp. 717-736.

Paulson, T. (2015), "Gates Foundation rallies the troops to attack UN development goals", *Humanosphere*, available at: http://www.humanosphere.org/world-politics/2015/05/gates-foundation-rallies-the-troops-to-attack-un-development-goals/ (accessed 21 October 2020).

Peoples, R. (2009), "Preparing today for a sustainable future", *Journal of Management Education*, Vol. 33 No. 3, pp. 376-383.

Pesonen, H. (2003), "Challenges of integrating sustainability issues into business school curriculum: A case study from the University of Jyvaskyla, Finland", *Journal of Management Education*, Vol. 27 No. 2, pp. 158-171.

Pfeffer, J. (2005), "Why do bad management theories persist?: A comment on Ghoshal", *Academy of Management Learning and Education*, Vol. 4 No. 1, pp. 96-100.

Pipa, A. and Brown, K. (2019), "American leadership on the Sustainable Development Goals", The Brookings Institution, available at: https://www.brookings.edu/blog/up-front/2019/10/14/american-leadership-on-the-sustainable-development-goals/ (accessed 21 October 2020).

Pogge, T. and Sengupta, M. (2015), "The Sustainable Development Goals (SDGs) as drafted: Nice idea, poor execution", *Washington International Law Journal Association*, Vol. 24 No. 3, pp. 571-587.

Program Learning for Sustainable Development (2011), *ESD in the Netherlands: Learning for Sustainable Development: 2008-2011. From Strategy to (General) Practice*. available at: https://www.duurzaamdoor.nl/sites/default/files/brochure_eng_lr_tcm24-338880.pdf (accessed 21 October 2020).

Quian, W. (2013), "Embracing the paradox in educational change for sustainable development: A case of accounting", *Journal of Education for Sustainable Development*, Vol. 791, pp. 75-93.

Robinson, S. and Shumar, W. (2014), "Ethnographic evaluation of entrepreneurship education in higher education: A methodological conceptualisation", *The International Journal of Management Education*, Vol. 12 No. 3, pp. 422-432.

Scott, M. (2015, Feb. 9), "Sustainability now key selling point for business schools attracting students", *Guardian*, available at: https://www.theguardian.com/sustainable-business/2015/feb/09/are-business-schools-taking-sustainability-seriously (accessed 21 October 2020).

Shavell, S. (1994), "Acquisition and disclosure of information prior to sale", *RAND Journal of Economics*, Vol. 25 No. 1, pp. 20-36.

Spencer, D. (2004, April 7), *Card sorting: A definitive guide*, available at: http://boxesandarrows.com/card-sorting-a-definitive-guide/ (accessed 21 October 2020).

Spencer, D. (2009), *Card sorting: Designing usable categories*, Rosenfeld Media, Brooklyn, NY, available at: http://www.ipcinfo.org/fileadmin/user_upload/drm_matrix/docs/CardSorting-for-printing.pdf (accessed 21 October 2020).

UN Global Compact (2007), *The Principles for Responsible Management Education*, available at: http://www.verwaltung.uni-halle.de/dezern1/presse/aktuellemeldungen/wirtschaftsethik-principles.pdf (accessed 24 October 2020).

UNESCO (2002), *Education and the Search for a Sustainable Future*, available at https://unesdoc.unesco.org/ark:/48223/pf0000179121 (accessed 24 October 2020).

UNESCO (2012), *Education for Sustainable Development Sourcebook*, available at http://unesdoc.unesco.org/images/0021/002163/216383e.pdf (accessed 9 February 2021).

UNESCO (2020), *Education for Sustainable Development: A Roadmap*, available at: https://unesdoc.unesco.org/ark:/48223/pf0000374802 (accessed 9 February 2021).

United Nations (2015). *Transforming our World: The 2030 Agenda for Sustainable Development*, available at: https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E (accessed 11 February 2021).

United States Environmental Protection Agency (2018), *Advancing Sustainable Materials Management: 2015 Fact Sheet*, available at: https://www.epa.gov/sites/production/files/2018-07/documents/2015_smm_msw_factsheet_07242018_fnl_508_002.pdf (accessed 21 October 2020).

Van Kruchten, S. and Van Eijk, F. (2020), *Circular Economy & SDGs: How Circular Economy Practices Help to Achieve the Sustainable Development Goals*, available at: https://circulareconomy.europa.eu/platform/sites/default/files/3228_brochure_sdg_-_hch_cmyk_a4_portrait_-_0520-012.pdf (accessed 11 February 2021).

Van Maanen, J. (1979), "Reclaiming qualitative methods for organizational research: A preface", *Administrative Science Quarterly*, Vol. 24 No. 4, pp. 520-526.

Walck, C. (2009), "Integrating sustainability into management education: A Dean's perspective", *Journal of Management Education*, Vol. 33 No. 3, pp. 384-390.

Weathers, J. (2018), “How to transition to a circular economy”, Unpublished manuscript.

Weathers, J. and Landrum, N. (2017), “How to transition Chicago to a circular economy”, available at: http://plantchicago.org/app/uploads/2017/08/Weathers-Landrum_How-to-Transition-Chicago-to-a-Circular-Economy.pdf (accessed 21 October 2020).

Webster, K. and Johnson, C. (2009), *Sense and Sustainability: Educating for a Low Carbon World*, TerraPreta, United Kingdom.