

## **Maximizing the Impact of Changemaker Education: Lessons from a Case Study**

**By:** Lois Fearon\*

\*Royal Roads University

**Keywords:** sustainability, changemaker, changemaker education, higher education, education for sustainable development, business school curriculum

### **Abstract**

This paper considers the major themes that emerged from a multi-case study examining the impact of integrating changemaker education into the business school curriculum at Royal Roads University. More specifically, research findings shedding light on practices and contexts that contribute to the development of positive sustainability orientations are discussed. Findings include the importance of discipline-specific changemaking coursework, powerful pedagogies, passionate instructors, and a supportive hidden curriculum. The importance of introducing students to conceptualizations of sustainability rooted in stronger perspectives is also discussed.

### **The Challenge**

The lingering impact of a global pandemic, unprecedented reversals in poverty reduction, rising inflation, the war in Ukraine, and catastrophes caused by extreme weather events make daily headlines. Climate scientists warn that thresholds leading to irreversible and disastrous climate change may have already been crossed.<sup>i</sup> The fragility of the earth's systems has never been more apparent; subsequently, neither has the need to embrace more sustainable ways of living and being.<sup>ii</sup> Given the overlapping crises, the urgency for higher education to play an even greater role in facilitating the development of changemakers who can help cannot be understated.<sup>iii</sup>

The growth of signatories to initiatives such as the SDG Accord and associated networks such as the Association for the Advancement of Sustainability in Higher Education and the Principle for Responsible Management Education suggests that progress is being made and that many post-secondary institutions are increasingly incorporating changemaker education into curriculums.<sup>iv</sup> Evaluation of the impact efforts have had in terms of students' orientations toward changemaking or sustainability has, however, been sparse<sup>v</sup>. As such, it is difficult to recommend or to adopt best practices. With this in mind, a multi-case study that considered the impact of integrating sustainability into business programs at Royal Roads University (RRU) was conducted.

## **The Cases**

Since its inception in 1995, when RRU pioneered a blended learning model which combined on-campus residencies with online courses, the institution has been committed to changemaking. Embedding sustainability into the curriculum of their degrees is considered an important component of their changemaking intention.<sup>vi</sup> Within RRU's School of Business, two distinct undergraduate degrees are offered, each having sustainability incorporated into the curriculum but in different ways. The Bachelor of Business Administration (BBA) focuses specifically on sustainability, and the concept has been intentionally embedded in nearly all courses. Alternatively, the Bachelor of Commerce (BCom) focuses on developing an entrepreneurial mindset, and sustainability is more narrowly integrated. The concept is introduced as a component of one course at the beginning of the program and then becomes the focus of another course towards the end. Understanding how these different approaches impacted students' sustainability orientations provided insight helpful to the development of best practices for changemaker education.<sup>vii</sup>

## **Research Approach**

Eight BBA, 10 BCom students, and 11 faculty members participated in 60-to-90-minute semi-structured interviews between September 2018 and January 2019. Interviews with students uncovered if and how sustainability mindsets and the propensity to act as sustainability change agents shifted throughout their programs. The factors that contributed to changes were also explored. Faculty interviews considered how faculty conceptualized sustainability, how and if they integrated it into their courses, and how important they believed it to be. Data collection continued until it was clear that patterns were being repeated and theoretical sufficiency or data saturation had occurred.

To increase the trustworthiness of findings and enhance the breadth and depth of the study, interview data were triangulated with document analysis and field notes. All BBA and BCom course outlines were analyzed to increase understanding of sustainability's role in the program and individual courses. Notes were made on how often sustainability or associated terminology, such as systems thinking, sustainable development, and changemaking, were included as a course or program learning outcome or were referenced in content overviews, readings, and assignment instructions.

Miles and Huberman's (1994) technique of studying patterns and themes on an individual case basis and then comparing the patterns and themes across the cases was implemented.<sup>viii</sup> Data analysis was done within NVIVO, where emerging themes were explored in detail, utilizing an approach similar to Glaser and Strauss's (1967) constant comparison method of analysis.<sup>ix</sup> First cycle coding was theory generated and holistic.<sup>x</sup> As the cyclical process of coding evolved, ideas emerged that had not originally been considered in the initial literature review. In response to these new ideas, additional literature was consulted, which subsequently influenced the latter stages of the coding process. Pattern codes were used to further explore themes, relationships, and constructs.<sup>xi</sup>

## **Findings**

Faculty in both the BCom and the BBA supported the inclusion of sustainability in curricula. With one exception, faculty recognized both the multidimensionality and the long-term temporal focus of the concept. Diverse examples of how they had incorporated it into their courses were provided. Live case studies, experiential learning, and the development of critical thinking skills were pedagogical approaches found to be common across programs. A notable difference was that BBA faculty spoke of attempting to foster empathy for nature through direct exposure. BCom faculty did not. The document analysis supported interview findings, revealing that sustainability was meaningfully embedded in at least 16 of the 21 BBA courses and five of the 21 BCom courses. These findings supported and triangulated findings from the student interviews that revealed the impact that integration efforts actually had.<sup>xii</sup>

One of the first themes that emerged from the analysis of the student interview data was that, with a few exceptions, students' sustainability orientations shifted over the course of their programs. The exceptions were the students in the BCom who were only midway through their programs and had not taken a sustainability-focused course. None of those students felt their attitudes and conceptualizations of sustainability had changed. All others felt their orientations had shifted, but the nature of the shifts was influenced by both pre-program orientations and coursework taken.<sup>xiii</sup>

Students in the study who had taken sustainability-focused coursework and had started their program with limited awareness of sustainability and ambivalent attitudes toward it developed stronger and more positive orientations and attitudes. Understanding of the concept and its' multidimensionality also increased, as did the adoption of pro-sustainability behaviors. Alternatively, students in the study who, at the outset, already had pre-existing pro-sustainability orientations, did not feel they had become stronger advocates or that their sustainability behaviors had increased. They had, however, come to appreciate and prioritize the relevance of making a business case for sustainability within the corporate sector.<sup>xiv</sup>

In addition to preprogram orientations, the program in which the students were enrolled also impacted the nature of shifts in conceptualization. Although there were many similarities, BBA students, as opposed to BCom students, tended to include a long-term temporal aspect in their conceptualizations, highlighting, for example, that thinking about sustainability meant thinking about future generations.<sup>xv</sup>

Among the BBA and BCom students who had adopted more pro-sustainability behaviors, it is worthwhile noting that the behaviors mentioned would be considered primarily reformist or light green in nature<sup>xvi</sup>, such as increasing efforts to recycle and reducing energy consumption. Darker green or more radical behavioral changes noted were limited primarily to things like reducing consumption and making minor lifestyle changes.<sup>xvii</sup>

In addition to coursework taken, students in the study spoke adamantly about other factors which had also influenced changes in their sustainability orientations. The attitudes and

practices of the university community were noted by all students as having been very influential. Students in both programs also spoke of the influence of passionate faculty, the integration of real-world examples, and being involved in experiential project-based learning where the campus was, in a sense, used as a living lab.<sup>xviii</sup> The natural beauty of the campus setting and having sustainability embedded in every course were additional factors that influenced BBA students. Media exposure and current events, as well as being involved in extra-curricular activities, were also noted as having influenced the orientations of some participants.<sup>xix</sup>

### **Recommendations Based on Lessons Learned**

Three recommendations arose from the lessons learned through this research. The first was to “ensure the integration of sustainability in various courses is complemented by a discipline-focused changemaking sustainability course positioned in the early stages of degree completion.” The second was to “move beyond disciplinary conceptualizations and introduce students to stronger stances.” The third was to “take an integrative approach and pay attention to context.”

**1) *Ensure the integration of sustainability in various courses is complemented by a discipline-focused changemaking sustainability course positioned in the early stages of degree completion.***

The finding that the only students who did not experience shifts in their sustainability orientations were BCom students who had yet to take a sustainability-focused course speaks to the influence that taking at least one focused course can have. Although the concept had been touched upon in courses that had been offered early on in the BCom program, the limited exposure did not, in the absence of a more focused course, make a difference in sustainability orientations. In striving to influence orientations positively, the importance of including courses focused specifically on changemaking early on in a program offering seems evident.<sup>xx</sup>

**2) *Move beyond disciplinary conceptualizations and introduce students to stronger stances.***

The adoption of sustainability-related behaviors that would be considered reformist as opposed to radical in nature and the lack of recognition, particularly prevalent amongst BCom students, that sustainability has a long-term temporal focus suggests the adoption of what sustainability advocates refer to as “weaker” orientations.<sup>xxi</sup> That the nature of changes experienced by students who started their programs with strong sustainability orientations was related to increasingly prioritizing the business case perspective also points to the adoption of reformist or weaker stances.<sup>xxii</sup> Considering the severity of sustainability challenges and the significant changes that many leaders in the field agree are necessary to cope with the challenges,<sup>xxiii</sup> it seems important that stronger sustainability perspectives be introduced into changemaking curriculum.

**3) *Take an integrative approach and pay attention to context.***

The finding that students felt strongly that, in addition to coursework taken, other factors had also had a significant influence on their sustainability orientations speaks to the importance of

taking an integrative approach to changemaking education, an approach also advocated for by other scholars<sup>xxiv</sup>. The role that powerful pedagogies<sup>xxv</sup>, passionate instructors<sup>xxvi</sup>, a supportive hidden curriculum<sup>xxvii</sup>, and a connection to place and community all played was evident<sup>xxviii</sup> and is consistent with findings from others. In integrating changemaking content into the curriculum, it is important to recognize that without also paying attention to these variables, integration efforts may not be effective in terms of shifting orientations.

## **Conclusion**

The cascading of existential threats that the world is facing seems unprecedented. There has perhaps never been a time when it has been more important for post-secondary institutions to contribute to the development of changemakers who can help tackle the complexity of the multiple crises posing threats. Insights gained from the multi-case study indicate that to maximize the impact of integrating changemaker education into the curriculum, including a course focused specifically on the area early on in the program is important, as is incorporating content in other core courses. Including changemaker content is, however, only one step in the process. The content ought to be delivered within the framework of a supportive hidden curricula by passionate instructors. Moreover, to develop changemakers with the courage to initiate the kind of transformation called for by advocates of strong sustainability, the introduction of conceptualizations rooted in stronger perspectives is warranted.<sup>xxix</sup>

## **Terminology**

A multitude of definitions exist for many of the terms used throughout this paper. The definitions provided here are those used throughout this particular study.

- **Case Study:** “an intensive holistic description and analysis of a single instance, phenomena, or social unit.”<sup>xxx</sup>
- **Changemaker:** “Anyone who steps up to address a problem, activate others, and takes action for the good of all.”<sup>xxxi</sup>
- **Changemaking:** “a broad term for taking action to effect positive change.”<sup>xxxii</sup>
- **Changemaker Education:** “provides individuals with the opportunity to activate personal agency to not only solve the problems of the world, but to also impact their own reality.”<sup>xxxiii</sup>
- **Education for Sustainable Development:** “empowers learners to take informed decisions and responsible actions for environmental integrity, economic viability and a just society, for present and future generations, while respecting cultural diversity. It is about lifelong learning and is an integral part of quality education. ESD is a holistic and transformational education, which addresses learning content and outcomes, pedagogy and the learning environment. It achieves its purpose by transforming society.”<sup>xxxiv</sup>
- **Sustainable Development:** Development that meets the needs of the current generation without compromising the ability of future generations to meet their own needs. It has a social, economic, and ecological dimension.<sup>xxxv</sup>

- **Strong vs. Weak Sustainability:** Strong sustainability is linked to politically progressive stances on social, environmental, or eco-justice and to structural and radical systemic changes with longer-term perspectives. Weak conceptualizations are linked to shallower, mainstream interventions that perpetuate current systems and advocate for continued growth. <sup>xxxvi</sup>

## References

- Armstrong McKay, David, Arie Staal, Jesse Abrams, Ricarda Winkelmann, Boris Sakschewski, Sina Loriani, Inga Fetzer, et al. 2022. "Exceeding 1.5°C Global Warming Could Trigger Multiple Climate Tipping Points," *Science* 377, (6611):1. doi: 10.1126/science. abn7950.
- Ashoka U. 2019. Preparing Students for a Rapidly Changing World, Learning Outcomes for Social Innovation, Social Entrepreneurship, and Changemaking Education. *Creative Commons*. Retrieved from <https://gloaleducationforum.org/wp-content/uploads/2021/09/Preparing-Students-For-a-Rapidly-Changing-World.pdf>.
- Blasco, Maribel. 2012. "Aligning the Hidden Curriculum of Management Education With PRME: An Inquiry-Based Framework." *Journal of Management Education*, 36,3: 364–388. <https://doi.org/10.1177/1052562911420213>.
- Cotterell, Debbie, Jo-Anne Ferreira, Robert Hales and Charles Arcodia. 2019. "Cultivating Conscientious Tourism Caretakers: A Phenomenographic Continuum Towards Stronger Sustainability." *Current Issues in Tourism* 23(8), 1004-20. doi.org/10.1080/13683500.2019.1577369.
- Cullen, John. 2017. "Educating Business Students About Sustainability: A Bibliometric Review of Current Trends and Research Needs." *Journal of Business Ethics* 145 (2): 429-439. doi 10.1007/s10551-015-2838-3.
- Eagle, Lynne., David Low, Peter Case and Lisa Vandommele. 2015. "Attitudes of Undergraduate Business Students Toward Sustainability Issues." *International Journal of Sustainability in Higher Education* 16 (5): 650–668. <https://doi.org/10.1108/IJSHE-04-2014-0054>.
- Elkington, John. 2018. "25 Years Ago I coined the Phrase "Triple Bottom Line." Here's Why Its Time to Rethink It." *Harvard Business Review* 25: 2-5. <https://hbr.org/2018/06/25-years-ago-i-coined-the-phrase-triple-bottom-line-heres-why-im-giving-up-on-it>.
- Erskine, Laura and Scott Johnson. 2012. "Effective Learning Approaches for Sustainability: A Student Perspective." *Journal of Education for Business* 87(4):198–205. <https://doi.org/10.1080/08832323.2011.590162>.

- Fearon, Lois. 2020. "Integrating Sustainability into Business School Education: Understanding the Impact." Unpublished Doctoral Thesis, *University of Calgary, Prism Database*.  
[https://prism.ucalgary.ca/bitstream/handle/1880/112492/ucalgary\\_2020\\_fearon\\_lois.pdf?sequence=2&isAllowed=y](https://prism.ucalgary.ca/bitstream/handle/1880/112492/ucalgary_2020_fearon_lois.pdf?sequence=2&isAllowed=y).
- Filho, Walter Leal, Chris Shiel, Armindo Paço, Mark Mifsud, Lucas Ávila, Londero Brandli, Petra Molthan-Hill, P, et al. 2019. "Sustainable Development Goals and Sustainability Teaching at Universities: Falling Behind or Getting ahead of the Pack?" *Journal of Cleaner Production* 232: 285-294. doi.org/10.1016/j.jclepro.2019.05.309.
- Findler, Florian, Norma Schönherr, Rodrigo Lozano, Daniela Reider and Andre Martinuzzi. 2019. "Impacts of Higher Education Institutions on Sustainable Development—Review and Conceptualization." *International Journal of Sustainability in Higher Education* 20 (1): 23–38. doi.org/10.1108/IJSHE-07-2017-0114.
- Glasser, Barney and Anselm I. Strauss. 2017. *The discovery of grounded theory: Strategies for qualitative research*. Routledge. (Aldine, 1967).
- Gramatakos, Anastasia Luise and Stephanie Lavau. 2019. "Informal Learning for Sustainability in Higher Education Institutions." *International Journal of Sustainability in Higher Education* 20(2): 378–392. <https://doi.org/10.1108/IJSHE-10-2018-0177>.
- Hay, Rachel and Lynn Eagle. 2020. "Impact of Integrated Sustainability Content into Undergraduate Business Education." *International Journal of Sustainability in Higher Education* 21 (1): 131–143. doi:10.1108/IJSHE-05-2019-0174.
- Høgda, Catherina, Andreas Rasche, Dennise Schoeneborn and Levinia Scotti. 2019. "Exploring Student Perceptions of the Hidden Curriculum in Responsible Management Education." *Journal of Business Ethics* 168: 173-193. <https://doi.org/10.1007/s10551-019-04221-9>.
- Hopkinson, Peter, Peter Hughes and Geoff Layer. 2008. "Sustainable Graduates: Linking Formal, Informal and Campus Curricula to Embed Education for Sustainable Development in the Student Learning Experience." *Environmental Education Research* 14 (4): 435–454. <https://doi.org/10.1080/13504620802283100>.
- Kagawa, Fumiyo. 2007. "Dissonance in Students' Perceptions of Sustainable Development and Sustainability: Implications for Curriculum Change." *International Journal of Sustainability in Higher Education* 8(3): 317-338. doi.org/10.1108/14676370710817174.
- Kemper, Joya, C. Michael Hall & Paul Ballantine. 2019. "Marketing and Sustainability: Business as Usual or Changing Worldviews?" *Sustainability* 11 (3): 780: <https://doi.org/10.3390/su11030780>.

- Lengyel, Attila, Szilvia Szoke, Sandor Kovacs, Lorent-Denis David, Eva Bacsne- Baba and Anetta Muller. 2019. "Assessing the Essential Pre-conditions of an Authentic Sustainability Curriculum." *International Journal of Sustainability in Higher Education* 20 (2): 309–340. doi.org/10.1108/IJSHE-09-2018-0150.
- Luederitz, Christopher, David Abson, Rene Audet, & Daniel Lang. 2017. "Many Pathways Toward Sustainability: Not conflict but Co-learning Between Transition Narratives." *Sustainability Science* 12 (3): 393–407. https://doi.org/10.1007/s11625-016-0414-0.
- Louk Lafler, Sandra and Charlot Pascal. 2019. "Learning Outcomes and Building a Shared Vision for Changemaker Education." *Evaluating Changemaker Education: A Practitioner's Guide*, edited by Ashoka U, p.7-14. Creative Commons. https://ashokacanada.org/wp-content/uploads/2021/12/EN\_CMC-Program-Overview\_2021-1.pdf.
- MacVaugh, Jason and Mike Norton. 2012. "Introducing Sustainability into Business Education Contexts Using Active Learning." *International Journal of Sustainability in Higher Education* 13 (1): 72–87. https://doi.org/10.1108/14676371211190326.
- Marshall, Catherine and Gretchen Rossman. 2016. *Designing Qualitative Research*, 6th ed. Jossey-Bass.
- Merriam, Sharan. 1998. *Qualitative Research and Case Study Applications in Education*. Jossey-Bass.
- Miles, Matthew. B and Michael Huberman. 1994. *Qualitative Data Analysis: An Expanded Sourcebook* (2nd ed.). Sage Publications.
- Molderez, Ingrid and Elsa Fonseca. 2018. "The Efficacy of Real-World Experiences and Service Learning for Fostering Competences for Sustainable Development in Higher Education." *Journal of Cleaner Production* 172: 4397–4410. https://doi.org/10.1016/j.jclepro.2017.04.062.
- Ojiambo, Sanda. 2021. *Heads of State Join CEOs and UN Chiefs in Calling for Accelerated Corporate Action on Sustainability to Recover Better from COVID 19*. Quoted in: United Nations Global Compact News. Retrieved from https://www.unglobalcompact.org/news/4711-06-16-2021.
- Orr, David. 1992. *Ecological literacy: Education and transition to a postmodern world*. State University of New York Press.



- Piasentin, Flora Bonazzi and Lin Roberts. 2018. "What Elements in a Sustainability Course Contribute to Paradigm Change and Action Competence? A Study at Lincoln University, New Zealand." *Environmental Education Research* 24 (5): 694-715. doi.org/10.1080/13504622.2017.1321735.
- Pretorius, Rudi Wessel, Ryan Anderson, Anisa Khotoo and Richelle Pienaar. 2019. "Creating a Context for Campus Sustainability Through Teaching and Learning: The Case of Open, Distance and e-Learning." *International Journal of Sustainability in Higher Education* 20 (3): 530–547. https://doi.org/10.1108/IJSHE-02-2019-0066.
- Royal Roads University. 2022. "Royal Roads University, Changemaker Campus" (nd), https://ashokau.org/campuses.
- Rusinko, Cathy. 2010. "Integrating Sustainability in Management and Business Education: A Matrix Approach." *Academy of Management Learning & Education* 9 (3): 507-519. doi.org/10.5465/AMLE.2010.53791831.
- Saldaña, Johnny. 2013. *The Coding Manual for Qualitative Researchers, 2nd ed.*, Sage Publications.
- Segalas, Jordi, Karel Mulder and Didac Ferrer-Balas. 2012. "What do EESD "Experts" Think Sustainability Is? Which Pedagogy is Suitable to Learn it?: Results from Interviews and Cmaps Analysis Gathered at EESD 2008." *International Journal of Sustainability in Higher Education* 13(3): 293–304. https://doi.org/10.1108/14676371211242599
- Selby, David. 2017. "Education for Sustainable Development, Nature and Vernacular Learning." *Center for Educational Policy Studies Journal* 7 (1): 9–27.
- Selby, David and Fumiyo Kagawa. 2018. "Teetering on the Brink: Subversive and Restorative Learning in Times of Climate Turmoil and Disaster." *Journal of Transformative Education* 16 (4): 302–322. https://doi.org/10.1177/1541344618782441
- Springett, Delyse. 2010. "Business Studies Curriculum: Ideological Struggle." *Sustainability Education: Perspectives and Practices Across Higher Education*, ed. Stephen Sterling, Earthscan, 75–92.
- United Nations Educational, Scientific and Cultural Organization. (n.d.-c). 2020. "What is education for sustainable development?" Accessed 2020. https://en.unesco.org/themes/education-sustainable-development/what-is-esd.
- Winter, Jennie and Debby Cotton. 2012. "Making the Hidden Curriculum Visible: Sustainability Literacy in Higher Education." *Environmental Education Research* 18 (6): 783–796. https://doi.org/10.1080/13504622.2012.670207

World Commission on Environment and Development. 1987. *Our Common Future*. Accessed 2020. <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>.

Zen, Irina Safitri. 2017. "Exploring the Living Learning Laboratory: An Approach to Strengthen Campus Sustainability Initiatives by Using Sustainability Science Approach," *International Journal of Sustainability in Higher Education* 18 (6): 939–955. <https://doi.org/10.1108/IJSHE-09-2015-0154>.

---

<sup>i</sup> Armstrong McKay, David et al. 2022. "Exceeding 1.5°C Global Warming Could Trigger Multiple Climate Tipping Points," *Science* 377, 6611:1.

<sup>ii</sup> Ojiambo, Sanda. 2021. "Heads of State Join CEOs and UN Chiefs in Calling for Accelerated Corporate Action on Sustainability to Recover Better from COVID 19," UN:1.

<sup>iii</sup> Fuessel, Angie. 2020. "Becoming A Changemaker Institution, A guidebook for how your campus can increase its relevance and resilience and lead in a rapidly changing world", Ashoka U: I.

<sup>iv</sup> Filho, Walter Leal et al. 2019. "Sustainable Development Goals and Sustainability Teaching at Universities: Falling Behind or Getting Ahead of the Pack?", *Journal of Cleaner Production* 232: 285-294.

<sup>v</sup> Cullen, John. 2017. "Educating Business Students about Sustainability: A Bibliometric Review of Current Trends and Research Needs," *Journal of Business Ethics* 145:429-439; Florian Findler et al. 2019. "Impacts of Higher Education Institutions on Sustainable Development - Review and Conceptualization," *International Journal of Sustainability in Higher Education* 20 (1): 23-38; Rachel Hay and Lynne Eagle. 2020. "Impact of Integrated Sustainability Content into Undergraduate Business Education," *International Journal of Sustainability in Higher Education* 21 (1) :131-143; Cathy Rusinko. 2010. "Integrating Sustainability in Management and Business Education: A Matrix Approach," *Academy of Management Learning & Education* 9 (3): 507-519.

<sup>vi</sup> Royal Roads University. "Royal Roads University, Changemaker Campus" (n.d.), <https://ashokau.org/campuses>.

<sup>vii</sup> Fearon, Lois. 2020. "Integrating Sustainability into Business School Education: Understanding the Impact", Unpublished Doctoral Thesis, (University of Calgary):77-83.

<sup>viii</sup> Miles, B. Matthew and Michael Huberman. 1994. *Qualitative Data Analysis: An Expanded Sourcebook, 2nd ed.*, (Sage Publications).

<sup>ix</sup> Glasser, Barney and Anselm I. Strauss. 2017. *The Discovery of Grounded Theory: Strategies for Qualitative Research*. (Aldine, 1967).

<sup>x</sup> First cycle coding: Saldaña, Johnny. 2013. *The Coding Manual for Qualitative Researchers, 2nd ed.*, (Sage Publications).

Theory generated: Catherine Marshall and Gretchen Rossman. 2016. *Designing Qualitative Research, 6th ed.* (Jossey-Bass).

- 
- 13.
- <sup>xi</sup> Saldaña, Johnny. 2013. *The Coding Manual for Qualitative Researchers, 2nd ed.*, (Sage Publications), p. 13.
- <sup>xii</sup> Fearon, Lois. 2020. "Integrating Sustainability into Business School Education: Understanding the Impact", Unpublished Doctoral Thesis, (University of Calgary):135.
- <sup>xiii</sup> Ibid,136.
- <sup>xiv</sup> Ibid.
- <sup>xv</sup> Ibid, 88.
- <sup>xvi</sup> Luederitz, Christopher, David Abson, Rene Audet, & Daniel Lang. 2017. "Many Pathways Toward Sustainability: Not conflict but Co-learning Between Transition Narratives", *Sustainability Science* 12 (3): 393–407; Lynne Eagle, David Low, Peter Case and Lisa Vandommele. 2015. "Attitudes of Undergraduate Business Students Toward Sustainability Issues", *International Journal of Sustainability in Higher Education* 16(5): 650–668; Fumiyo Kagawa. 2007. "Dissonance in Students' Perceptions of Sustainable Development and Sustainability: Implications for Curriculum Change." *International Journal of Sustainability in Higher Education* 8(3): 317-338.
- <sup>xvii</sup> Fearon, Lois. 2020. "Integrating Sustainability into Business School Education: Understanding the Impact", Unpublished Doctoral Thesis, (University of Calgary): 117-122.
- <sup>xviii</sup> Pretorius, Rudi Wessel, Ryan Anderson, Anisa Khotoo and Richelle Pienaar. 2019. "Creating a Context for Campus Sustainability Through Teaching and Learning: The Case of Open, Distance and E-Learning." *International Journal of Sustainability in Higher Education* 20(3): 530–547; Irina Safitri Zen. 2017. "Exploring the Living Learning Laboratory: An Approach to Strengthen Campus Sustainability Initiatives by Using Sustainability Science Approach," *International Journal of Sustainability in Higher Education* 18(6): 939–955.
- <sup>xix</sup> Fearon, Lois. 2020. "Integrating Sustainability into Business School Education: Understanding the Impact", Unpublished Doctoral Thesis, (University of Calgary):135.
- <sup>xx</sup> Ibid, 177.
- <sup>xxi</sup> Cottrell, Debbie et al. 2019. "Cultivating Conscientious Tourism Caretakers: A Phenomenographic Continuum Towards Stronger Sustainability," *Current Issues in Tourism* 1(1):1–17; Fumiyo Kagawa. 2007. "Dissonance in Students' Perceptions of Sustainable Development and Sustainability: Implications for Curriculum Change." *International Journal of Sustainability in Higher Education* 8(3): 317-338.
- <sup>xxii</sup> Cotterell, Debbie et al. 2020. "Cultivating Conscientious Tourism Caretakers: A Phenomenographic Continuum Towards Stronger Sustainability"; John Elkington. 2018. "25 Years Ago I coined the Phrase "Triple Bottom Line." Here's Why Its Time to Rethink It," *Harvard Business Review*.
- <sup>xxiii</sup> Lengyel, Attila et al. 2019. "Assessing the Essential Pre-conditions of an Authentic Sustainability Curriculum." *International Journal of Sustainability in Higher Education* 20(2): 309–340; Flora Bonazzi Piasentin and Lin Roberts. 2018. "What Elements in a Sustainability Course Contribute to Paradigm Change and Action Competence? A Study at Lincoln University, New Zealand." *Environmental Education Research* 24(5): 694 -715. UN, n.d.
- <sup>xxiv</sup> Hopkinson, Peter, Peter Hughes and Geoff Layer. 2008. "Sustainable Graduates: Linking Formal, Informal and Campus Curricula to Embed Education for Sustainable Development in the Student Learning Experience," *Environmental Education Research*, 14(4): 435–454; Catherina Hogdal, Andreas Rasche, Dennise Schoeneborn and Levinia Scotti. 2019. "Exploring Student Perceptions of the Hidden Curriculum in Responsible Management Education." *Journal of Business Ethics* 168: 173-193.

<sup>xxv</sup> MacVaugh, Jason and Mike Norton. 2012. "Introducing Sustainability into Business Education Contexts Using Active Learning." *International Journal of Sustainability in Higher Education* 13(1): 72–87; Ingrid Molderez and Elsa Fonseca. 2018. "The Efficacy of Real-World Experiences and Service Learning for Fostering Competences for Sustainable Development in Higher Education", *Journal of Cleaner Production*, 172: 4397–4410; Rudi Wessel Pretorius, Ryan Anderson, Anisa Khotoo and Richelle Pienaar. 2019. "Creating a Context for Campus Sustainability Through Teaching and Learning: The Case of Open, Distance and e-Learning." *International Journal of Sustainability in Higher Education* 20(3): 530–547; Jordi Segalas, Karel Mulder and Didac Ferrer-Balas. 2012. "What do EESD "Experts" Think Sustainability Is? Which Pedagogy is Suitable to Learn it?: Results from Interviews and Cmaps Analysis Gathered at EESD 2008," *International Journal of Sustainability in Higher Education* 13(3): 293–304.

<sup>xxvi</sup> Erskine, Laura and Scott Johnson. 2012. "Effective Learning Approaches for Sustainability: A Student Perspective," *Journal of Education for Business*, 87: 198–205.

<sup>xxvii</sup> Maribel, Blasco. 2012. "Aligning the Hidden Curriculum of Management Education With PRME: An Inquiry-Based Framework." *Journal of Management Education* 36(3): 364–388; Anastasia Luise Gramatakos and Stephanie Lavau. 2019. "Informal Learning for Sustainability in Higher Education Institutions." *International Journal of Sustainability in Higher Education* 20(2): 378–392; Catherina Hogdal, Andreas Rasche, Dennise Schoeneborn and Levinia Scotti. 2019. "Exploring Student Perceptions of the Hidden Curriculum in Responsible Management Education." *Journal of Business Ethics* 168: 173-193; Jennie Winterand Debby Cotton. 2012. "Making the Hidden Curriculum Visible: Sustainability Literacy in Higher Education." *Environmental Education Research* 18(6): 783–796.

<sup>xxviii</sup> Orr, David. 1992. *Ecological literacy: Education and transition to a postmodern world*. State University of New York Press; David Selby. 2017. "Education for Sustainable Development, Nature and Vernacular Learning," *Center for Educational Policy Studies Journal* 7(1): 9–27; David Selby and Fumiyo Kagawa. 2018. "Teetering on the Brink: Subversive and Restorative Learning in Times of Climate Turmoil and Disaster." *Journal of Transformative Education* 16(4): 302–322.

<sup>xxx</sup> Merriam, Sharan. 1998. *Qualitative Research and Case Study Applications in Education* (Jossey-Bass), Chapter 2, section 2, para. 1.

<sup>xxxi</sup> Ashoka U. 2019. *Preparing Students for a Rapidly Changing World, Learning Outcomes for Social Innovation, Social Entrepreneurship, and Changemaking Education*, (Creative Commons), 14, <https://globaleducationforum.org/wp-content/uploads/2021/09/Preparing-Students-For-a-Rapidly-Changing-World.pdf>

<sup>xxxii</sup> Ibid, 18.

<sup>xxxiii</sup> Lafleur, Sandra Louk and Pascale Charlot. 2019. "Learning Outcomes and Building a Shared Vision for Changemaker Education", in *Evaluating Changemaker Education: A Practitioner's Guide*, ed. Ashoka U, (Creative Commons), p. 7.

<sup>xxxiv</sup> United Nations Educational, Scientific and Cultural Organization. (n.d.-c). 2020. "What is education for sustainable development?", accessed 2020, <https://en.unesco.org/themes/education-sustainable-development/what-is-esd>.

<sup>xxxv</sup> World Commission on Environment and Development. *Our Common Future*, 1987, Article 4, §1, accessed 2020, <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>.

<sup>xxxvi</sup> Cottrell, Debbie et al. 2019. "Cultivating Conscientious Tourism Caretakers: A Phenomenographic Continuum Towards Stronger Sustainability," *Current Issues in Tourism* 1(1):1–17; Joya Kemper, C. Michael Hall

---

& Paul Ballantine. 2019. "Marketing and Sustainability: Business as Usual or Changing Worldviews?", *Sustainability* 11(3): 780; Christopher Luederitz, David Abson, Rene Audet, & Daniel Lang. 2017. "Many Pathways Toward Sustainability: Not conflict but Co-learning Between Transition Narratives", *Sustainability Science* 12(3): 393–407; Springett, Delyse. 2010. "Business Studies Curriculum: Ideological Struggle" in *Sustainability Education: Perspectives and Practices Across Higher Education*, ed. Stephen Sterling, (Earthscan), 75–92.