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Dziubaniuk, Olga; Nyholm, Monica

Published in: International Journal of Sustainability in Higher Education

DOI: 10.1108/IJSHE-02-2020-0081

Published: 21/09/2020

Document Version Accepted author manuscript

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Link to publication

Please cite the original version:

Dziubaniuk, O., & Nyholm, M. (2020). Constructivist approach in teaching sustainability and business ethics: a case study. International Journal of Sustainability in Higher Education, -. https://doi.org/10.1108/IJSHE-02-2020-0081

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Constructivist approach in teaching sustainability and business ethics: a case study Authors:

Olga Dziubaniuk (Corresponding author) Contact details:

International marketing dep., School of Business and Economics, Åbo Akademi University,

Vänrikinkatu 3B, 20500, Turku, Finland. e-mail: olga.dziubaniuk@abo.fi.

Monica Nyholm

Contact details:

International marketing dep., School of Business and Economics, Åbo Akademi University,

Vänrikinkatu 3B, 20500, Turku, Finland. e-mail: monica.nyholm@abo.fi.

Abstract

Purpose - This paper aims to explore methods of teaching sustainability and business ethics, relevant to the modern demand for student's skills and knowledge. The study explores the challenges of teaching a business school undergraduate level course and argues that a constructivist pedagogy is a suitable epistemological approach for designing a course unit concerning sustainability and ethics.

Design/methodology/approach - The paper presents case study findings drawn upon course feedback and course reflections aimed at making sense of what the most effective pedagogic approaches were that influenced students' learning.

Findings - Results indicate that students appreciate active forms of learning via practical assignments and discussions. As knowledge of sustainability and business ethics is important for the student's future career path, students need to develop skills of applying conceptual knowledge to practice via constructive pedagogical methods.

Practical implications – This empirical study contributes to the literature of constructivist pedagogics, which is explored in the context of sustainable development and business ethics teaching. Practically, it contributes to the analysis of teaching methods and frameworks applied in

the course emphasizing the necessity of engaging in interactive and personalized learning and teaching processes.

Originality/value - Issues of teaching ethics and sustainable development is a known concern, but they have to be addressed systematically due to the changing business environment. This study explores the constructivist pedagogy based on empirical evidence and highlights its value in the educational process.

Key words Sustainable development, constructivism, business ethics, education for sustainable development, Finland

Paper type Research paper

Introduction

The principles of sustainable development and ethical business activities are becoming more and more prominent in the business practices of modern companies. Large and small businesses alike have a high demand for newly graduated specialists with knowledge of sustainable and ethical issues (Hesselbarth *et al.*, 2015). Accordingly, universities and business schools introduce courses dedicated to sustainable business and ethics into their curriculum (Bridges and Wilhelm, 2008). This process corresponds to the aims of the Sustainable development goals (SDGs) and specifically Goal 4 Quality education supporting knowledge and skills of sustainability. Studies of sustainability in business also promote the principles of circular economy (see e.g. Ellen MacArthur foundation, 2020), encouraging future managers to develop new business models and to aim at closed loop production and consumption processes. The challenges of teaching ethics and sustainability to business students is not a new concern (McDonald and Donleavy, 1995; Andenberg *et al.*, 2009), but there is always room for improvement in teaching methods, especially in the context of an evolving society facing new environmental and social issues.

How sustainable development is being taught, depends on the curriculum structure but frequently it highlights the neoclassical thinking on markets (Stubb and Cocklin, 2007) as a contrast to the promotion of an understanding of the Triple bottom line framework, as summarized by Elkington (e.g. 1997). Embedding sustainability in the curriculum of business studies aims at helping students in exploring these issues from different perspectives and developing critical thinking while discussing concepts related to, for instance, industrial pollution, effects of climate change, human rights, equality etc. Similarly, studies of business ethics engage students in defining moral values, business virtue, solving dilemmas as well as finding reasoning for and judgment of business decisions (Sims, 2002). Despite almost two decades of teaching sustainability and business ethics in the universities around the world, these study units utilize different teaching methods and literature sources (Wals and Jickling, 2002; Barber *et al.*, 2014). Different methods can be used to reach the same teaching objectives within different contexts (e.g. market, country, sustainable development priorities etc.) This opens opportunities for pedagogic creativity and modification of the course content according to turbulent political and economic environments, and possibilities to adjust them to the novel expectations on graduates' knowledge.

Considering the importance of pedagogic methods for knowledge creation and dissimilation, this study explores the experience of teaching the university course "Sustainable Business" at Åbo

Akademi University, Finland from a constructivist pedagogic perspective (Hyslop-Margison and Strobel, 2007; Bada, 2015). The course binds together themes of sustainable development and business ethics. It adopts a conventional understanding of sustainability as "meeting the needs of the present without compromising the ability of future generations to meet their needs" (Brundtland report, 1987, p. 41). Business ethics focuses on what is morally right and wrong in business conduct (e.g. De George, 2011) demonstrating benefits and risks of (un)ethical managerial behavior.

The authors argue that a constructivist approach is suitable for developing a study unit related to sustainability and ethics since it is grounded on the premises of knowledge co-creation during student-teacher and student-student interaction. The premises of constructivism also support the development of the students' creative thinking by combining practical "learning by doing" with a conceptual understanding (Richardson, 2003). Hence, this study aims at exploring *how constructivist teaching methods affect students* `*learning and knowledge development processes of sustainability and business ethics*. The study adopts a student perspective and deepens the understanding of how the students make sense of those methods in respect to their learning. The students' feedback on the course content and the teaching methods are analyzed in the empirical section of the article.

This study aims to fill the gap in the literature on constructivist pedagogy and education in relation to the subjects of sustainability and business ethics. Conceptually, this research adds to the literature on methods of teaching which are numerous, as discussed in the following sections, but appropriate, according to the context of teaching. Teaching sustainability and especially business ethics, remines a challenging task as students need to understand the consequences of their actions in their roles as business managers, as well as their impact and the responsibilities they bear in society. As a contribution to practitioners, this study explores teaching methods grounded on the principles of knowledge co-construction and encourages adjustment of those methods to the specific context where the teaching is taking place.

The constructivist approach to pedagogy

From a constructivist perspective, knowledge is the result of human action or the outcome of intellectual activity (Bredo, 2000), while learning is the active process where the learner creates knowledge through their own interpretation of their experiences (cf. Amineh and Asl, 2015). Constructivism in pedagogy embraces learning theories and teaching methods (Howe and Berv,

2000; Bada, 2015) where the students' interest, previous knowledge and attitude are placed at the center of the learning process. It concerns the learning environment, methods of students' activation in class, and other activities aimed at individual development of the students' knowledge and skills (Richardson, 2003, Seatter and Ceulemans, 2017). Hence, the instructor needs to be more of a facilitator, supporting the individual learning process, than a teacher providing facts through lecturing.

Direct instructing during lectures and, assessing the students' knowledge of concepts learned by heart in conventional exams, frequently result in a limited understanding of how this knowledge can be applied in practice. Knowledge is developed rather than found in a given environment (Bredo, 2000). Its object and subject are not static but entangled with one another. Knowledge should have an internal relation to the learner's interest as being a product of their mental activity. Knowledge development is about dealing with physical objects and understanding abstract concepts about the world (Glasersfeld, 1995). Pedagogically speaking, students have to participate actively in the learning process, and they should be allowed to rediscover meanings or concepts with which they interact. Students have to develop their own vision and opinion that leads to critical thinking in addition to the learnt facts. A critical approach to sustainable development concepts is, as emphasized in the research on a Swedish university (Sammalisto *et al.*, 2015), part of a broader perspective of the development of sustainability competence in universities.

Traditional lecturing, as a form of direct instruction, should not be excluded from the constructivist approach to the subject teaching (Hyslop-Margison and Strobel, 2007) but combined with other methods of active learning (Higgs and McCarthy, 2005; Schmidt *et al.* 2015). Lecturing can still be an effective mechanism of knowledge transfer if the instructor steps away from the traditional dyadic instructing and organizes lectures in an inspiring, provoking and exiting manner. The instructor's task is to turn lecture time into an active learning environment by promoting a dialogue with the students and giving them control over their own learning (Higgs and McCarthy, 2005; Seatter and Ceulemans, 2017). For instance, in the flipped classroom approach, instructors facilitate the students' learning by guiding them rather than giving directs instructions (Buil-Fabregá *et al.*, 2019). The role of the students changes from passive receivers to active promoters of knowledge. This model demands of the instructors to have excellent skills in designing materials and in the usage of technology and, in particular, to change their own mindset, letting go of their need of being in full control. This student-centered framework (O'Neill and McMahon, 2005) underlines

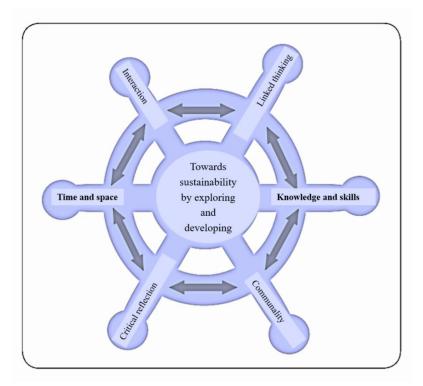
active student involvement in the learning process where they themselves decide on what and how to learn. In contrast, teacher-centered learning limits the student's choice of topics and assignments empowering the instructor to control the whole process of knowledge transfer. Constructivist learning should be balanced between student and teacher-centered frameworks. Discovery and independent work should remain at the core of the learning process (Carlile and Jordan, 2005).

A review of progress reports submitted to the United Nations Principles for Responsible Management Education (Godemann *et al.*, 2011) shows that the teaching of sustainability and business ethics used to rely on traditional teaching methods such as guest speakers, case studies and field-based learning experience. However, more creative and active methods are appropriate for teaching sustainability. Active learning embraces various techniques primarily based on problem investigation and solving as well as critical reflection (MacVaugh and Norton, 2012). Similarly, project-based learning is built on students working collectively on real-world cases finding managerial solutions applicable in professional fields (Weick *et al.*, 2014; Hanson, 2015). A survey of teachers of European higher education institutions, indicated that project or problem-based teaching methods linked to issues of the local community (or country-specific) are more efficient in developing competence in sustainable development as well as analytical skills and critical thinking (Lozano *et al.*, 2019).

According to the constructivist approach, new knowledge is constructed on top of what the students already have (Richardson, 2003; Hanson, 2015). The student's intellectual background should be recognized in developing specific approaches to facilitate the learning process. Thus, the differences in previous knowledge between novices to an area and more progressed learners need to be acknowledged. This has been stressed especially after a debate within educational psychology where the critique towards constructivist teaching methods stressed that active learning methods cannot be used until a more formal introduction to the area has been presented (Hanson, 2015). Students of various backgrounds; country of origin, culture, major studies or attitude toward sustainability and ethics, tend to have different interests in those topics. Nevertheless, intercultural interaction between students can broaden the horizon of understanding sustainability issues through sharing international experience (Rohweder *et al.*, 2008; Linh Dan and Mino, 2016). Culture, as a set of believes and values, shapes the surrounding social context and the learning environment such as the classroom activities and the teaching tradition in universities (Hyslop-Margison and Strobel, 2007). The status of the instructor differs in the cultural frames as well: Westerners prefer an active

dialogue with the instructor compared to the preaching style of teaching and non-questionable knowledge of a lecturer in the Eastern culture (Merriam and Bierema, 2014). In addition, the teacher' cultural background and personal engagement in e.g. sustainable development teaching, can deviate from the institutional expectations as research among UK lecturers indicates (Melles, 2018). The constructivist pedagogy encourages students to determine, challenge or extend existing believes and theories (Richardson, 2003) and this cannot be achieved without critical thinking (Filho *et al.*, 2018). Critical thinking, in the context of teaching sustainability and ethics, helps students to question and interpret facts from their own personal point of view. Their thinking is influenced by their social interaction with an instructor and other students. Social interaction is significant in this case as, under the constructivist premises, knowledge is not solely individual cognition, but a result of shared understanding and cooperation with others (e.g. Hyslop-Margison and Strobel, 2007).

Rohweder *et al.* (2008) introduced a contextual pedagogical model supporting sustainable development, see Figure 1. The model is built on constructivist, socio-constructivist, humanistic and cognitive traits. The model serves as a good starting point for developing activities for active learning of sustainability and business ethics.



al., 2008)

In the model, *interaction* refers to the possibilities of realizing the global responsibility as well as understanding differences when interaction occurs between individuals from different cultures. *Communality* during the learning refers to social justice as well as learning skills for avoiding conflict and finding solutions, both locally and globally. *Linked thinking* makes it possible to develop an understanding for how different topics, such as e.g. economic growth, consumption and environmental sustainability are connected. *Critical reflection* on present practices is connected to *time* in placing events in their historical context in order to contemplate alternative options for the future. The *space* element stresses the need to focus on the global responsibility but also take into account local responsibility (Rohweder *et al.*, 2008).

Ethics and sustainability in the context of Finnish business education

Although universities bear the responsibility to provide the necessary knowledge and skills for students to meet the novel pre-requisites for employment (Wallenius *et al.*, 2020), the introduction of studies related to sustainable business and ethics can also be rooted in the culture and social development of a country. This study is made within the Finnish context of education as a positive attitude towards sustainable development is embedded in the Finnish history and culture (e.g. Ivanova-Gongne *et al.*, 2016). Finnish business schools follow Scandinavian traditions of education with the business schools possessing a stronger international mind-set compared e.g. to the US (Thomas *et al.*, 2013) and, at the same time, committing their studies to issues within the local business environments (Endwall, 2000). Finland has less standardized university programs compared to many other countries: teachers have a relative freedom to develop and adapt the course content and pedagogic methods according to the student's previous knowledge and the context where the learning takes place. Finland has established a high-standard system of education which may show best practices to other countries in respect to sustainable development, and ethical business management.

In 2006, in connection to the development of the Baltic 21E, "An Agenda 21 for Education in the Baltic Sea Region - Baltic 21E", and the UN Decade of Education for Sustainable Development, ESD 2005 - 2014, the Finnish Ministry of Education launched a national strategy for education in sustainable development. In the reports published by the Ministry the constructivist approach to

teaching sustainability was promoted from start (e.g. Rohweder *et al.*, 2008). Sustainability has been included in the curriculum in all stages of the Finnish educational system, from pre-school to universities, since the 1990's, first focusing mainly on environmental sustainability but, over time, widening to include the whole sphere of sustainability (Salmio, 2009).

Finland conventionally obtains top places in the world's environmental rankings. The Environmental Performance Index listed Finland in 2018 among the top ten countries (EPI, 2019). Finland participates actively in implementation of the UN 2030 Agenda for sustainable development. The Finnish national strategy for sustainable development was reformed in 2013 and introduced Society's Commitment to Sustainable Development, with its main targets stated in the document "The Finland we want by 2050", adopted in 2016. This document emphasizes Finland's role in the globalized society and the environmental responsibility that the country bears for the current and future generations. In addition, the Society's Commitment promotes global and local collaboration among societal actors from both the public and the private sectors (Prime Minister's Office, 2019). Finnish Universities actively implement sustainable development programs and courses in their curriculum and strategically participate in environmental and social projects (Takala and Korhonen-Yrjänheikki, 2019). For instance, the Baltic University Programme (BUP) unites Finnish universities with other universities of the Baltic region countries to support research and education on sustainability.

Research methodology

Course description

The present case study (e.g. Yin, 2009) lays within the scope of the course Sustainable Business. The course has been offered by the subject International Marketing at the Business School of Åbo Akademi University annually since 2009. The tuition language is English. The course is elective for bachelor as well as master's degree students and can be a part of the student's minor or major studies. The course participants are Finnish and international students. Two instructors are responsible for the course teaching. Co-teaching is useful for the introduction of different teaching methods by experienced instructors who can contribute to the learning process with their different scientific background, experience, world vision or cultural perspective (Tobin, 2000).

The aim of the course is to enhance the participants' knowledge of sustainability from a business perspective, among other, including environmental issues, social responsibility and ethics. During

the course, students immerse into discussion of the ways in which a company can accommodate the demands for sustainability set by customers, authorities and other interest groups. Simultaneously the course takes a pro-active stance studying how new markets and competitive advantages can be gained through sustainability. The framework of the course is summarized in Table 1. Pedagogically, the course includes conventional lectures, guest lectures and practical seminars. Students' group work is aimed at analyzing and evaluating company communication as well as developing business plans for sustainability-oriented innovations.

	Knowledge development	Learning perspective
Lectures	Key topics: CSR, business ethics, Triple bottom line, circular economy, international regulations and Sustainable Development Goals. Theory is combined with practical examples.	Discuss environmental, social and economic aspects; ethical business behavior and dilemmas; risks and consequences of unsustainable business practices; proactive and reactive sustainable business initiatives.
Guest	Experts' insights from industry	Practical examples of sustainable
lectures	(manufacturing, consulting, medical R&D etc.)	initiatives, inspiration and motivation.
Practical	Company analysis in groups: sustainable	Seminars involves discussion of
seminars	business initiatives, marketing communication, reporting, critical perspective. Case discussion in class. Business plan development: students in groups develop a business idea with sustainable features at the core of the business model.	cases and real-life examples of companies; theory combined with practice.
Group work	Group work includes company analysis and presentation in class; group discussions, and development of a business plan.	Stimulate students' learning from each other, social and international communication skills. Students analyze companies critically and practice presentation skills; develop sustainable business planning and management expertise.
Individual	Individual essay on the selected case	Application of theories to practice,
assignments	discussed in class; final individual report ("take-home exam") of two selected topics and short reflections on the learning process.	critical individual analysis.

 Table 1. Sustainable business course framework

Although other courses in the Business school incorporate some discussion of sustainability and business ethics, this course has sustainable development and ethical issues as its main focus. It offers an understanding of the reasoning for ethical behavior and a theoretical background for the development of sustainability thinking. The practical assignments and case discussions are focused on examples of companies that are successfully implementing sustainable or ethical principles in their business models. In addition, "negative" business cases are also discussed e.g. business ethics violation or manipulation of information in CSR reports. Students have to not only learn the facts of the cases, but also to analyze the reasons for such behavior, its risks and benefits, and to provide managerial solutions which involve critical thinking. The group assignment of developing a business plan demands of the students to create a plan for a company that places sustainability into the core of its operations, which is not easy compared to developing a strategy for a business that only partially implements some sustainable activities. The conventional course exam is replaced by a final essay where the students get to choose two topics to write about according to what are the most relevant ones in the light of their study background and their own interest. They have to work with academic literature and practical examples, which is also similar to writing a graduation thesis. In addition to the essays, the students have to provide free-form reflection about the course which serve as empirical data for this research.

Data collection and analysis

The empirical data of this study consists of two data sets: anonymous course feedback and freeform reflections written as part of the final individual essay ("take-home exam"). Both data sets have been collected within the timeframe of 2016-2019. Anonymous course evaluation feedback in the form of a questionnaire is collected at the end of the course. The course evaluation includes questions about course objectives, literature, guest lectures, seminars and, group as well as individual work. Special interest was given to the answers to open-ended questions where students could briefly write their impressions of what was good about the course and what could be improved. Open-text responses are of interest here as students could express what was important for them, without the phrasing of the question influencing their thinking. Students also emphasized what they had learned and what methods they found to be effective for supporting their learning. Since answering this questionnaire was voluntary, not all course participants completed it. The amount of evaluation feedback collected within four years is listed in Table 2.

Year	Course evaluation	Free-form course
	feedback	reflection
2016	31	38
2017	41	44
2018	21	29
2019	31	56
Total	124	168

Table 2 Course evaluation feedback and course reflections

The highest grade for the final individual assignment is 50 points of which the compulsory course reflection part is graded with 6 points, which makes 12% of the grade. This grading was introduced to assure that all course participants would provide course reflection. The reflection required the students to provide short answers (max 300 words in total) to the following three questions:

- What are the most important things that you have learned and how do they link to your previous knowledge and experience?
- How can you benefit in the future from the things you have learned during the course?
- When and how can you put into practice the things you have learned?

Therefore, participants' reflections containing rich data concerning the course content and learning are collected (see Table 2). The students' reflections were collected into separate files sorted by year. The reflections obtained reference numbers according to year and order number of the essay in the file. These order numbers are used as references under quotations in the results section. For ethical reasons, the names of the students are not revealed.

The analysis of the reflections was conducted with the help of NVivo textual data analysis tool used for collecting, arranging, analyzing and reporting data (Dean and Sharp, 2006). At the initial stage of the analysis relevant information from the texts was selected and grouped according to the themes learning process; teaching methods; critical thinking; benefits of the obtained knowledge and, its practical application. Within these, several nodes were created. The nodes *learning, critical perspective, guest lectures* and, *business ethics*, aim at clarifying the student's perception of the learned concepts and their transforming of information into knowledge.

Further, the nodes *case discussion*; *company analysis* and *business plan development* reflect the student's experience of learning-by-doing within the group and during the seminars. The node *knowledge application* aims to illustrate how students visualize the application of their knowledge

in practice in the future or in their current professional occupation while the node *previous knowledge* indicates the pre-knowledge of students and its enrichment during the course. Along with the analysis process, two more nodes appeared - *daily life* and *beyond sustainable business*. Students frequently mentioned that the obtained knowledge is applicable in their social life and in their general roles in society.

A sensemaking approach was applied to conceptualize the collected data in a structural way (e.g. Weick, 1995). Sensemaking is an act of discovering the meanings of events, artifacts or obtained information from individuals. It is an approach of understanding people's vision of the world and their beliefs (Mills *et al.*, 2010). Therefore, the data analysis attempted to clarify how students make sense of the teaching methods and the learning process during the various parts of the course.

Results

In the course evaluation feedback, the students gave the course a grade varying between 3.24 and 3.45 on a scale from 1 as the lowest grade to 5 as excellent during the 4-years period. In the feedback questionnaires the students needed to reflect on which teaching methods that supported their learning and what should be improved in the course. Among the most effective teaching methods, students mentioned the practical seminars (26 responses in total), group work (21) and guest lectures (9). Participation in group work and seminars was helpful for developing critical thinking and an understanding of how the theoretical knowledge can be applied in practice. Among weak points of the course, students indicated a need for more discussion and interaction during the lectures. Although most of the respondents found lectures useful and informative, 11 students emphasized that the lectures did not support their learning. They motivated their opinion with comments such as: "Lectures had too much information in them. We could talk more and listen less. Always on the edge of sleep when no interaction on lectures"; "More interaction on the lectures is needed"; "More interesting lectures with more student involvement [would support my learning]." Obviously, students are more interested in "contact lectures" where their role as passive listener turns into one of active co-creator of knowledge. In addition, students emphasized that sustainable development and ethics should be discussed from various perspectives i.e. industry, interest groups, operations, institutions etc.

Due to the structure of the anonymous course feedback, it provided limited information on the course. It offers information on the most appreciated teaching and learning methods, but it does

not help in understanding how the students make sense of their learning experience (e.g. Sandberg and Tsoukas, 2015). Therefore, the analysis of the free-form reflections was conducted according to the key themes of this research.

Learning process

Teachers need to recognize the student's previous expertise or background in order to design appropriate instructions (Hanson, 2015). Finnish students have previous understanding of sustainable development and ethics obtained already at school and from media. A useful aspect of learning is demonstrating in what way knowledge of the environment is familiar to the learners. According to the course reflections, the students approached sustainability and ethics as a novel paradigm for business management, both from the global and the local perspective.

It has been interesting to learn how sustainability is becoming part of the business world and how exercising sustainability can also give an advantage for the companies.

2017:39

Since one of the aims of the course was to develop marketing management skills, students were interested in the competitive advantage and profit generation that sustainability and business ethics can deliver. Ethicality of business processes has the potential to increase profit, but it also includes risks of being exposed to the public as being sustainable only for marketing reasons. This "pretended" ethicality frequently finds its refection in the concept of greenwashing, which seemed to be new for many students. Greenwashing casts a shadow on sustainable and ethical businesses if their target is to increase sales instead of "making a difference" as is frequently claimed in the marketing messages. Sustainability and, especially, the ethical issues of the modern business environment should be addressed from a critical perspective.

The most novel concept to the students seemed to be the social dimension of the Triple bottom line. Although many students possessed previous knowledge of environmental sustainability, the social sphere and business ethics were new concepts, especially in the context of international business:

Before I started the course, I thought that it would focus on environmental issues but I have learned that sustainability also includes social issues, such as social inequality, human rights, labour rights and health issues. In the course, the concept of CSR was approached as legitimation of business in society, its embeddedness in social interaction and, facing the interest of the entire society, typical for the Scandinavian business environment (e.g. Siltaoja and Onkila, 2013). The course focused on its practical execution such as CSR reporting and communication. However, this caused some confusion with business ethics which was approached as moral and managerial practices that extend beyond law regulations. For instance, the violation of human rights by subcontractors can create a negative reputation for the company even if nobody went to jail. Such examples urge students to consider the consequences of managerial decisions and their effects on stakeholders. However, and more importantly, students were able to understand the value that sustainable and ethical managerial practices can deliver to the company:

Sustainability is not only morally and ethically a good thing, but I am also intrigued by the value it adds to the company.

2016:31

Seeking sustainable solutions can yield big cost savings anywhere in the value chain. Many companies seek to engage with their stakeholders and by improving these relationships.

2017:44

A significant learning point is the changes in managerial practices caused by engaging in sustainable and ethical business management. Changes are frequently triggered not only as an adaptation to the evolving market demand or to legal requirements. The manager's own moral values also motivate making improvements in the social and environmental spheres. Students emphasized the role of business in society and the responsibility it bears:

Turning a company into a sustainable one is a challenging process that will force the management to reconsider their priorities, come up with new solutions and make changes to the previous business model.

2016:32

Obviously, the change process goes hand in hand with improvements in leadership and corporate culture. Conventionally, such changes in business practices are initiated at a higher managerial level. However:

I have also learned that a company's stakeholders, such as employees, can be a major source of innovation and in keeping the company sustainable.

This statement indicates that a favorable corporate culture supports innovations in a company. In addition, students underline their empowerment to make positive changes in business management. Communication of sustainability and ethics is significant inside the business organization as well as in the broader business environment:

The most important things that I have learned during the course are the meaning of proactive sustainability work inside the company.

2017:19

Sustainable and ethical companies act as attractive employers for newly graduated talents. Students understand that ethicality of business conduct secures companies from various risks. During the course, students developed ethical considerations when dealing with practical cases, dilemmas and theories. More importantly, they discovered benefits of ethical business conduct:

Initiate loyalty and commitment around common values proved that it can be the real strength of a business.

2017:21

Students make sense of sustainable consumption as a perspective of managers and consumers alike. Frequently, sustainable consumption is associated with purchasing eco-products or preserving nonrenewable resources. However, during the course, students understood that consumption habits can be changed if the consumers are educated concerning the impact of their choices:

I realized a link between my marketing communication course and this course. The consumer has to be educated to being sustainable and gradually to change consumption habits.

2019:42

Among other concepts learned, students were interested in developing competitive advantages by implementing sustainable or ethical business practices, adding value to the company and influencing the consumption habits of consumers. An important learning point concerns the marketing perspective on sustainability and the consequences of misleading marketing messages. Knowledge of legal regulations, reporting standards and sustainable labels were also indicated as important for business conduct.

Teaching methods

The students emphasized the creativity of the practical assignments where they learned to combine theory and practice. Discussion at the seminars aided in deepening the understanding of basic course concepts and was appreciated as a more favorable way of learning, typical for the Western culture (Merriam and Bierema, 2014). Lectures were mentioned as being useful primarily for developing theoretical knowledge, whereas guest lectures brought practical insight and exemplified the application of theory into business life. However, the conventional lectures were lacking discussion and, consequently, the students felt a need for more active participation in knowledge development to motivate learning during the lectures. Obviously, lectures have to be modified to achieve the goals of active learning (Winterbottom, 2020) which assume involvement of the whole class into e.g. problem-solving assignments (MacVaugh and Norton, 2012) or to take the lead of the lecturing in a flipped-classroom method (Buil-Fabregá *et al.*, 2019).

The most frequently mentioned knowledge co-creation method was working in groups together with other students. Conceptually, group work is a form of collective learning (Slavin, 1996) where students collaborate in a small group helping each other to understand and learn the course content (Lehtonen, 2016). During the course, group work proved helpful in learning from each other even though not all students were keen on working together. However, communication as well as exchange of ideas and expertise, helped students to deal with the complexity of the course content:

Sustainability, for me, is a difficult challenge because of its wide area, thus has it been helpful to work in groups with different projects.

2016:22

An important contribution of group work is that the students learn to manage group tasks and improve intercultural communication. Canada-based research illustrate that students tend to change their attitude towards group work from negative to positive at the end of the course and intercultural work enables them to increase their learning (Reid and Garson, 2017). Collaboration teaches students to understand their role in the group and what possible contribution they can deliver to the group's success. In addition, an intercultural mix in the teams broadens the student's understanding of the international issues of sustainability and business ethics:

Beside all this, the work in my group has helped to get a deeper insight into how sustainability is performed in countries from different parts of the world: Finland, Germany, Spain and Mexico, and where improvement is necessary.

2017:5

Cultural diversity in the group is beneficial for understanding sustainable development issues on a global scale. Students have a chance to learn e.g. that the level of ecological challenges resulting

from climate change, vary in different parts of the world. Also, international students bring their own perspective on ethics and sustainability the way it is understood in their country of origin. In the groups, the students also analyzed companies' sustainability reports, web sites and various media sources to understand how companies conduct and communicate their sustainable and ethical business management. Not surprisingly, the students focused primarily on large multinational companies due to easier information access. One aim of sustainable reporting is to illustrate the outcomes of the company's CSR and their future development plans. However, companies can apply different meanings to what they call sustainability (Aras and Crowther, 2008). Even though the GRI Sustainability Reporting Standards (Globalreporting.org, 2020) are being applied by more and more organizations worldwide and are supported by the UN Global Compact, they are not mandatory. However, from 1.1.2017 within the EU, public-interest entities with more than 500 employees are obligated to disclose non-financial information with an emphasis on sustainability (Official journal of the European Union, 2014). Still, students should understand that sustainability is a vague term, the meaning of which can be misinterpreted. The students need to evaluate the credibility of such reports and identify what might be missing or what could be improved from a communication point of view.

The learning-by-doing method proved its efficiency, which is concluded from the students' reflections on the assignment of developing a business plan. They had to create a plan with a sustainable business model at the core:

I think the most useful project for my future was developing a sustainable company of our own. We had the possibility to be creative and incorporate everything we learned in the course, as well as from other business courses.

2016:20

This assignment aimed at combining theory with expertise of business development in addition to developing analytical, presentation and creative skills. The students shared their entrepreneurial ideas and collectively shaped these into business plans. They could decide what sustainable or ethical issues that would be vital for their businesses, and what kinds of social or environmental issues that could be solved with their business approaches. In addition, the students explored the role of small businesses in the sustainable development of society. This assignment was also useful

for understanding the ethicality of business management and managerial decisions in respect to sustainable development.

Critical thinking and information analysis

Instead of presenting to the students only theoretical concepts, the role of an instructor is that of a facilitator who guides the students to the ways of knowledge discovery (cf. Amineh and Asl, 2015). In addition, students need to learn how to study beyond the university. Thus, the ability to find and critically analyze information, is among key things to learn:

I have learned to seek and find information about sustainability related questions both from academic sources and from the information that businesses provide about their sustainability work and reporting.

2016:21

The development of critical thinking is one of the main responsibilities of university education. In the post-truth environment, students should learn to challenge conventional values and predominant ideas (Filho *et al.*, 2018). Therefore, critical thinking is a vital aspect of the design of a course in sustainable development embedded in the constructivist learning theories (Howlett *et al.*, 2016, Seatter and Ceulemans, 2017). A similar approach is applied to the teaching of business ethics since the ethicality of managerial decisions cannot be pursued solely as good or bad. For instance, the perspective of ethical relativism (e.g. McDonald, 2010) admits the acceptance of some unethical behaviour in business processes. Therefore, students have to understand the importance of critical evaluation of managerial action alternatives:

This is probably the biggest lesson I've learnt taking this course: a lot of companies ride on sustainability, even though they couldn't care less about the matter. We need genuinely good companies, and genuine good entrepreneurs, who really care about sustainability and the environment, to make a real change.

2016:38

From a business point of view, trustworthy data about the products is important as are fulfilled promises concerning sustainable and ethical business offers. This is a concern especially for large companies exposed to the media and environmentally conscious activists. However, students realize that companies also experience social pressure and frequently are forced to implement sustainable solutions. It rises concern about whether social and environmental sustainability really are voluntary actions.

Knowledge application

Knowledge transfer is successful if the students understand how the knowledge is applicable in practice. The students realized their power to bring positive change to society by improving existing business activities and by planning sustainable and ethical ones for the future. The students understood that it is vital to gain sustainability knowledge since the demand for employees with expertise in business ethics and the principles of sustainability, is growing. Those students, who planned to become entrepreneurs, could depict sustainable issues that they want to challenge:

Fashion is still too polluting, devastating and disrespectful of the environment but also of human rights. That is why I would like to start a social and eco-responsible business by showing that we can make fashion without having to exploit its employees, pollute rivers, and kill animals.

2017:15

It should be noted that despite business ethics being discussed during a dedicated lecture, students could not reflect on this concept in detail. Business ethics was understood as an addition to CSR activities, leading to long-term business operations and profitability. Naturally, CSR and ethics are interrelated, but the course addressed the more practical sides of CSR as marketing communication and reporting, compared to ethical business management. Obviously, a better clarification is needed to distinguish between these concepts, especially to understand what the difference is between a company's ethical code of conduct and a CSR report. Nevertheless, students did show an understanding of what ethicality of business means and what impact it has:

I strongly emphasize the moral in business and believe in justice, and fair treatment. I want to make sure that these values are visible in my work during my career.

2019:10

Students running their own businesses or being employed by companies could see an opportunity for improving their company's practices, reputation and image. In their vision, it is possible to implement more sustainable operations in technical design and in developing new business solutions and strategies. They are ready to apply the knowledge to the existing businesses to bring improvements, for instance, in supply chains and logistics.

The course also worked as a motivation for students to spread the insights they had learnt in their home universities:

I have realized the usefulness of this course from a student's perspective and would suggest my Home-University Program coordinator (in Pakistan) to include 'Sustainable Business' as an introductory course for the students (which does NOT currently exist in the program structure in many universities in Pakistan).

2017:30

The course content affected the students' thinking of their everyday consumer behavior. Although students mentioned their awareness concerning e.g. recycling, using public transportation instead of their own vehicles, purchasing products that last longer, the course also motivated them to think about the impact they can make to improve the sustainable development of society. They emphasized that knowledge concerning sustainability should be spread to their surrounding people like families, friends and co-workers. Especially international students from countries where sustainable development and business ethics are not a high priority, mentioned this.

Discussion

The results indicate that a constructivist approach can be effective for designing courses dedicated to sustainability and business ethics. From a constructivist perspective, the challenges of sustainability cannot be solved in one only, universal, right way (Glasersfeld, 1995). Hence, the instructor's role is to direct students into finding alternative solutions and critically evaluate their choices concerning business activities. The instructors need to encourage the students' thinking rather than simply assessing their performance. Research from the UK and Sweden stress that the teacher's personal expertise influences the approach to the course content, whereas the ability to support a critical approach to the concepts should be placed at the core of sustainability competence development in the universities (Sammalisto *et al.*, 2015; Melles, 2018).

The results empirically supported the pedagogic model of Rohweder *et al.* (2008) that promotes intercultural interaction, linked thinking of multidisciplinary subjects, knowledge and skills development in the retrospective frame, and communality in the global and local contexts. Critical reflection is embedded in the practical work and discussion of e.g. case studies, it helps students to identify and change their perception of sustainability and ethical issues. As the surrounding context affects the learning process (e.g. Richardson, 2003), it is important to exemplify how the

environmental and social issues fit into the experiential world of the students. Therefore, it can be necessary to implement discussion of practical cases related to local issues within a country or region. However, it is also important to follow international practices of business management as companies rely heavily on international value chains.

Creative assignments such as developing a business plan or performing company analysis are effective for the development of critical thinking and communication skills. Creative individual assignments also encourage students to search for information beyond the assigned readings and to look at practical examples of companies or related business management activities. Relative personalizing of students' assignments can be helpful for influencing students' thinking about sustainable issues, since they have to pursue sustainability or ethics as their own problems.

An interactive teaching approach to sustainability and business ethics increases the student's motivation to study and their understanding of the subject. Such interaction assumes active involvement in discussion at the lectures and seminars. Evidently, the lectures of the course require improvement and more activation of the students since students co-create knowledge by sharing their opinions, understanding and cultural perspectives (e.g. Amineh and Asl, 2015). Brief discussions or practical assignments in class would keep the students motivated while developing understanding.

Working in groups proved to increase the understanding of international sustainability and business ethics practices. According to Lehtonen (2016), group work comes with the challenge to make the group work together for a mutual goal. Heterogeneous groups, concerning culture and gender, are effective in increasing learning. Especially multicultural interaction leads to productive outcomes as Canadian research shows (Reid and Garson, 2017). However, the group members' different backgrounds and individual traits can make it difficult for the group to begin collaboration. Hence, the instructor needs to conduct team building exercises that make the group members comfortable with working together and make them create a mutual understanding of the tasks the group need to perform.

In general, active learning based on a constructivist approach can be placed at a core of the teaching of sustainability and business ethics subjects. Interactive lectures as well as discussions of practical cases at seminars, motivate students to learn and develop understanding. Critical thinking aims to challenge concepts and predominate ideas, which further develops the students' perception of sustainability, especially in relation to marketing. Relative personalizing of assignments helps

students to focus on the area of expertise that is interesting for them or related to their major studies. For instance, the development of a business plan for a sustainable company is an example of such assignments. Most important is, that teaching methods evolve and are adapted to the context where the learning occurs. The teaching process should be extended beyond dyadic methods of instructing and employ other creative approaches as e.g. flipped classroom (Buil-Fabregá *et al.*, 2019), experiential exercises or simulations (Sims and Felton, 2006), project based or problem-based learning (Weick *et al.*, 2014; Lozano *et al.*, 2019) and other methods of active learning (MacVaugh and Norton, 2012). As the world and markets change, novel teaching methods need to be developed and adopted.

The results indicate that the course content influenced the students' understanding of social issues. Although most of the students had preliminary knowledge of environmental concerns, the introduction to social issues and especially the concept of CSR became a revelation for many. Students expressed a vison of how they can apply the knowledge in their professional and daily lives. They intended to apply their knowledge to their current places of employment and future careers. The critical perspective on the presented cases and practical examples during the course helped the students to understand the role of business organizations and individuals in global sustainable development. In addition, ethical business management deserves special attention in international business management. For instance, students realize that dishonest marketing campaigns manipulate consumer behavior and that these marketing methods have to be questioned. Against expectations, the concept of business ethics had dissolved into the general context of sustainability. Results indicate that business ethics was understood as an integral part of CSR rather than a managerial and moral approach to business conduct practices. Students rarely mentioned their learning of business ethics concepts and mostly focused on the premises of CSR or companies being "a good corporate citizen", satisfying the expectations of all stakeholders. Obviously, students' understanding was focused on the practical issues of CSR rather than on a more philosophical approach to business ethics. Nevertheless, teaching business ethics as a background for sustainable development is a significant part of education on sustainability (Biedenweg et al., 2013). Ethical morals and values have to be communicated to the students to increase their understanding of the consequences of their actions' and, to develop their best personal qualities as members of society. This research indicates that in order to teach business ethics efficiently, this subject needs to be framed as an independent course or, at least, an equal amount of time should

be provided for the discussion ethical issues along with the concepts of sustainability. More discussion of empirical cases dedicated to ethical issues would increase the students' understanding. They should be able to evaluate critically business situations and choose the optimal solution. Such practical cases help in understanding theories related to business ethics even though the student may complain that ethics is a too philosophical approach.

Limitations and future research avenues

Although this study analyzes rich textual data, the research has its limitations. The students' understanding of sustainable and ethical issues can vary according to their home country context. For instance, students from developing countries with unsatisfied basic needs prevailing over sustainability concerns might be skeptical about the course content. On the other hand, it is an avenue for future research. International students' perspectives could be researched with respect to how studying abroad has affected their thinking and, perhaps, changed their attitude towards sustainable business and business ethics.

This study concerns a limited number of teaching methods within the context of a Finnish university. In respect to the context, experiences from different countries should be systematically compared applying triangulated quantitative and qualitative methods. In addition, novel teaching methods should be constantly evaluated for their suitability to sustainability and business ethics teaching. For instance, digitalization of teaching processes after the outbreak of Covid-19 demanded creative approaches to the planning and implementation of distant methods of teaching/learning. This opens new research opportunities on how those circumstances affected knowledge creation and dissemination.

Practical implications

This study contributes to the literature of constructivist pedagogy and empirically explores teaching methods for students' knowledge development. This pedagogic approach is researched in the context of a course on sustainability and business ethics conducted in a Finnish university. Therefore, it also contributes to the literature on teaching and learning sustainable development and ethical business practices.

The results of the study encourage educators to implement more interactive methods of knowledge development and student activation. Although various methods are known, they should be

grounded on the premises of the students' interest and their future career perspectives. Students need to learn how the challenges of sustainability can affect their managerial practices, lives and society in general. Sustainability and business ethics should be presented from an international perspective but connected to a local context to link knowledge to the student's surrounding environment. Active learning methods can be effective for knowledge construction and should be supported with active discussions, group work (preferably multicultural) and interactive lectures.

Conclusion

One of the reasons for teaching business ethics and sustainable development is to encourage business students to look beyond profit and self-interest (Giacalone, 2004). The principles of teaching ethics and sustainability go deeper than a discussion of what is right, wrong and, sustainable in business. Implementation of sustainability courses in university curriculum introduces different worldviews, theories and practical cases adding to the students' capabilities to see the perspectives of development of society in a sustainable way and evaluate managerial decisions as well as to face the demand of graduates with sustainability expertise on the employment market.

The constructivist pedagogical approach can be effective for designing courses of sustainability and business ethics. Students are able to deepen their understanding through interactive teaching methods and learning from each other. Students realize the usefulness of this knowledge and its usage in the future. Courses in sustainability and business ethics contribute to the development of critical thinking and understanding of environmental and social issues. The students should also be able to personalize their learning process. Among the studied teaching methods, the collaborative ones proved to be the most effective. Seminars dedicated to case discussion and group work, focused on developing a business plan for sustainable or ethical businesses, are the ones most appreciated by the students.

The instructor's role, from a constructivist perspective, is to guide the students through the learning path instead of engaging in preaching. Teachers have to motivate learning and facilitate activities in class to guide the learning process. Sustainability and ethics courses aim to inspire students not only to act ethically in future business management, but also to contribute to the sustainable and ethical development of society.

This study highlights that the approach to sustainable development teaching used in Finnish universities can serve as an example for developing and promoting sustainability in the curriculum in other countries and universities due to Finland's high-quality education system (Salmio, 2009) and the country-context being favorable to sustainability and business ethics in the market and society. For instance, the pedagogical model supporting sustainable development (Rohweder *et al.,* 2008), developed according to the Finnish context, can help to set a benchmark for the development of activities for active learning of sustainability and business ethics in curriculum planning.

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About the authors

Olga Dziubaniuk holds a master's degree of Global IT management from Turku University (Finland) and currently is a doctoral researcher in the department of International marketing at Åbo Akademi University. Teaching and research expertise lie with scopes of business ethics and sustainable development research fields and their relation to business and marketing. Specifically, her research interests are focused on industrial marketing management, business networks, corporate social responsibility, business ethics values, university pedagogics and circular economy.

Dr. Monica Nyholm holds a doctoral degree in International marketing as well as master's and licentiate degrees in Economic Geography from Åbo Akademi University. She is a university

teacher in the subject International marketing at the same university. Her teaching and research interests lie in industrial marketing, logistics, supply chain management, sustainable business and university pedagogics.