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Chapter 3. In Search for Innovative Teaching Formats Worldwide

In order to generate an overview of innovative teaching formats applied in teaching for sustainability in Higher Education Institutions worldwide, and as means to collect contributions for this book, an online survey was conducted, which will be presented together with its results throughout this chapter.

3.1. METHODOLOGY

The survey questionnaire was developed based on a detailed literature review. The concept for the questionnaire was mainly build on suggestions for criteria that have been found to influence the effectiveness of teaching in the area of responsibility, ethics and sustainability, as for example, teaching approaches and methods, course duration, group size or the audience of the course (Medeiros et al., 2017; Waples et al., 2009). Additionally, it contained pedagogical impact variables that have been identified during the process (see chapter 1 "Fundamental Insights about Teaching Formats in the Area of Sustainability and Responsibility") as well as descriptive variables such as the course name, its field of education and its primary topics. Table 3–1 gives an overview on all variables included in the questionnaire.

Table 3–1: Overview of questionnaire

Variable	Description
University/Institution	Full name of institution where course is conducted
Country	Country where institution is headquartered
Course name	Full name of course

Variable	Description
Primary topics	Primary topics of the course selected from the following list (see also Fig 3–1) (multiple responses allowed): • Circular economy • Corporate social responsibility • Sustainability management • Environmental management • Sustainable innovation management • Corporate citizenship • Corporate governance • Values-based leadership • Responsible leadership • Business / corporate ethics • Sustainable finance • Other (with specification)
Field of education	Field of education in which the study program of the course is anchored in (multiple responses allowed): • Education • Arts and humanities • Social sciences, journalism and information • Business, administration & law • Natural sciences, mathematics and statistics • Information and communication technologies • Engineering, manufacturing and construction • Agriculture, forestry, fisheries and veterinary • Health & welfare • Other (UNESCO-UIS, 2015, pp. 54–58)
Type of course	Indication whether course is part of a specific sustainability-related program or not (stand-alone)
Audience	Audience targeted by the course: • Students (university students, including MBA) • Professionals (practitioners) • Mixed
Level of studies	Level of studies the course belongs to (multiple choices allowed): • Bachelor • Master • MBA/EMBA • Doctoral • Other (with specification)
Delivery format	Percentage of face-to-face and online delivery of content (in a non-pandemic situation)
Voluntariness of course participation	Indication whether course participation is mandatory, elective or voluntary

Variable	Description
Workload	Total workload indicated in ECTS credits or hours
Duration of the course	Indication of number of weeks based on a given classification
Group size	Indication of average group size based on a given classification
Teaching approaches	Indication of main teaching approaches used in class (multiple choices allowed): • Lecture-based learning • Experiential learning • Collaborative learning • Active learning • Self-directed learning • Inter-/transdisciplinary learning • Other (with specification) See chapter 1 "Fundamental Insights about Teaching Formats in the Area of Sustainability and Responsibility" for definitions of the approaches.
Teaching methods	Indication of importance of different teaching methods (scale ranging from none to very high): • Lecture • Group discussion • Debate • In-class role play (e.g. Board Meeting Game) • Virtual reality simulation • Case study • Service-learning project (for community) • Sustainability-related consulting project • Sustainability-related research project • Self-reflection task/exercise • Interdisciplinary team teaching • Vision-building exercise • Field trip • Outdoor, nature-related experience • Gamification (e.g. LEGO game) • Arts-based teaching and learning method • Peer-teaching (e.g. student lecturer) • Flipped classroom • Other (with specification) See chapter 1 "Fundamental Insights about Teaching Formats in the Area of Sustainability and Responsibility" for definitions of the methods.

Variable	Description
Teaching criteria/characteristics (impact variables)	Indication of ranking on pedagogical impact variables (scale ranging from none to high): • Degree of student participation/activeness • Degree of student collaboration/group work • Degree of student emotional involvement • Degree of inter-/transdisciplinarity • Degree of student (self-)reflection • Degree of experience of real-life situations • Degree of nature-related experiences • Degree of stakeholder integration • Degree of integration between theory and practice See chapter 1 "Fundamental Insights about Teaching Formats in the Area of Sustainability and Responsibility" for definitions of impact variables.
Contribute to book writing	Indication of interest in contributing to the book and contact details

After the questionnaire template and online tool were completed, the tool was piloted and reviewed by partners of the EFFORT project as well as a number of experts.

Target respondents of the survey were educators using innovative teaching approaches and methods in sustainability, CSR, and ethics-related courses. The sampling for the online survey included 172 contacts of sustainability specialized educators from six continents. The contacts have been acquired using the European School of Sustainability Science and Research (ESSSR) network, the Network for Business Sustainability (NBS), the Principles for Responsible Management Education (PRME) network, the Biomimicry network as well as personal contacts of the EFFORT project partners, speakers from relevant conferences and authors of recent and relevant scientific articles.

The survey was distributed via the Qualtrics online survey platform, and answers were collected during March 2021. 62 responses to the questionnaire were received with a response rate of 36 %. After elimination of unfit answers (e.g., exclusion of unfinished answers), 45 responses were considered for further analysis.

As the questionnaire was also the basis for the selection of contributions for the book, all external authors were asked to provide short abstracts summarising their upcoming contribution. The selection of contribution was based on the abstracts as well as on an evaluation matrix including the degree of innovativeness and the diversity of teaching methods. In total 25 contributions were selected out of which 23 are finally included in the book.

3.2. SURVEY RESULTS

As described above, the analysed sample included 45 respondents. Those were representing five continents: Australia/Oceania (3 respondents), North America (3 respondents), South America (1 respondent), Asia (3 respondents) and Europe (35 respondents).

The most popular topics of the courses included sustainability management, sustainability, corporate social responsibility, sustainable innovation management, corporate ethics, business, environmental management, circular economy, and values-based leadership (see Figure 3–1).

Figure 3–1: Topics of courses[3]

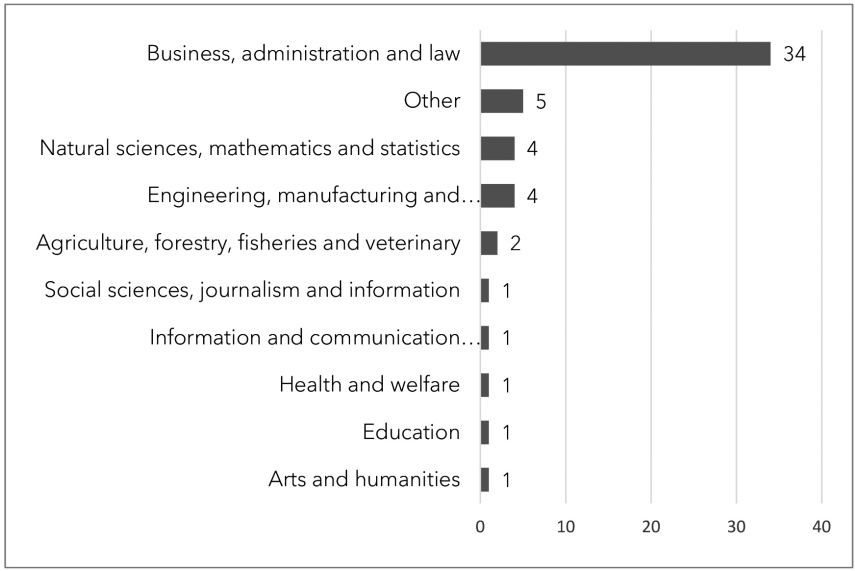
In line with these topics, courses included titles such as "The Three Realms of Sustainability and the Frameworks Associated with Them"; "Sustainable Marketing, Human Rights, Sustainable Reporting"; "Social Inclusion, Equality, Decent Work Conditions and Responsibilities of Every Individual in Business and Society"; "Social Entrepreneurship, Social and Solidarity Economy"; "Climate Policy"; "Legal Perspectives on Sustainability"; "Sustainable System Transitions"; and many more.

In terms of the educational fields of the courses, the field of "business, administration and law" was accentuated in the responses (34 times chosen)

3 Size of the letters relate to numbers of indications by respondents.

(see Figure 3–2). Besides, five times "other" was indicated, out of which three were in connection with already listed fields and two specified "sustainability science". Multiple responses were allowed in this question.

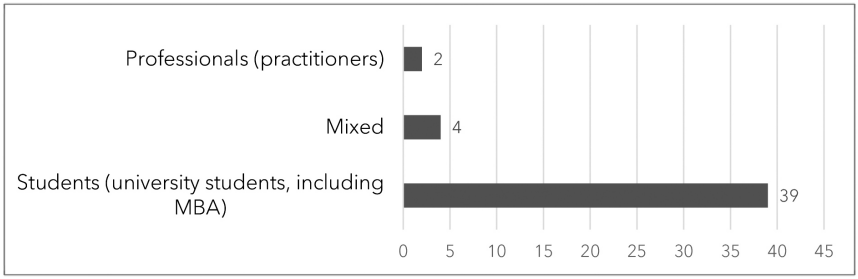
Figure 3–2: Field of education



Respective the type of the course, 71 % of the respondents (32 reponses) indicated that their course is a standalone course (i.e. that it is not connected to any specific sustainability-related program), while the rest indicated that they are offering an integrated course (i.e. that is part of a specific sustainability-related program).

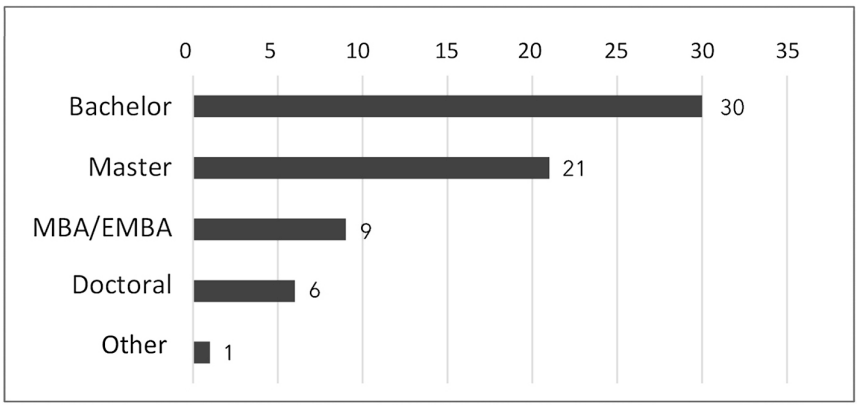
Figure 3–3 represents the target audiences of the courses. A large majority of courses targeted students (university students, including MBA students) (39 responses) and only a few professionals (practitioners) (2 responses) or mixed audiences (4 responses).

Figure 3–3: Audience targeted



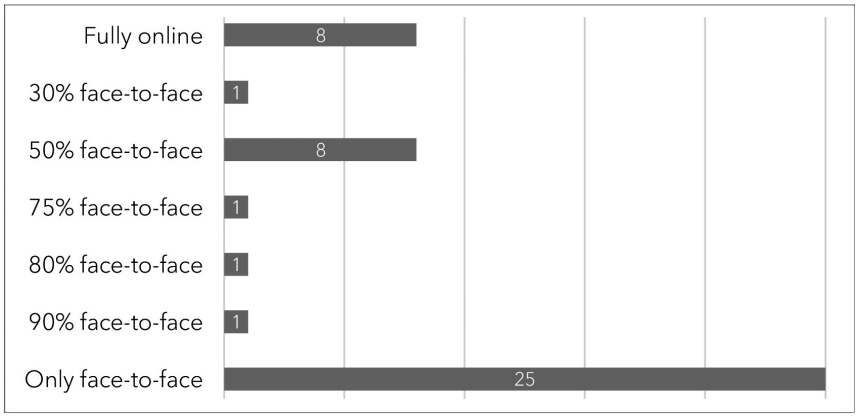
According to the level of studies the courses were classifyable mainly as bachelor (30 responses), master (21 responses), MBA (9 responses), and doctoral level courses (6 responses) (see Figure 3–4). Multiple choices were allowed in this question.

Figure 3–4: Level of studies



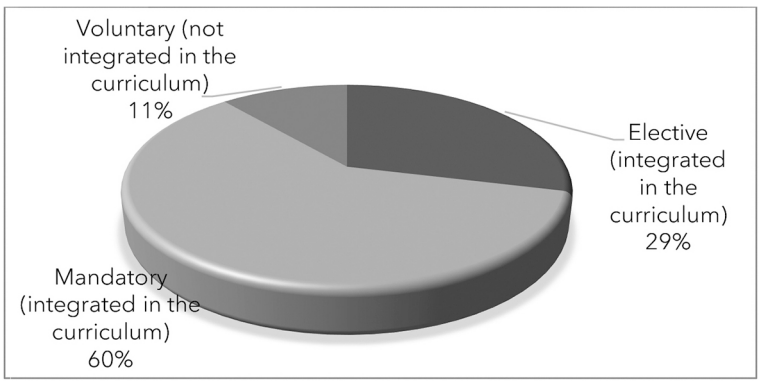
The proportion of face-to-face and online delivery of contents in the courses (in a non-pandemic situation) is represented in Figure 3–5. 25 respondents (56 %) reported teaching fully face-to-face, 8 (18 %) reported half-and-half, and 8 (18 %) reported teaching fully online. Additionally, four respondents reported teaching 30 %, 75 %, 80 % and 90 % face-to-face correspondingly.

Figure 3–5: Delivery of content



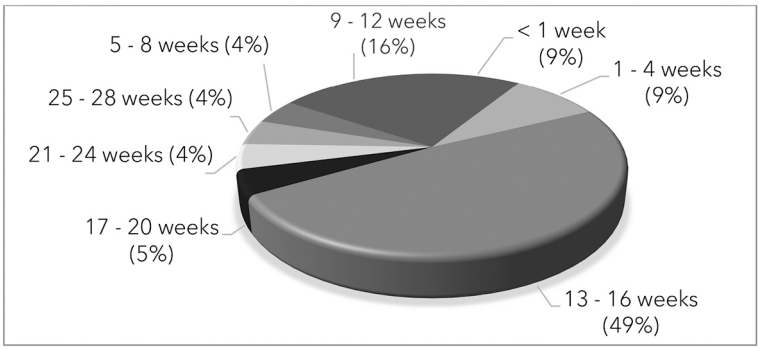
In terms of the voluntariness of course participation for potential participants, the following results were obtained (see Figure 3–6): The majority of the courses was specified as being integrated into the curriculum either in the form of a mandatory course (60 %, 27 responses) or an elective course (29 %, 13 responses). Only 11 % of respondents (5 responses) indicated that their course is a voluntary add-on course, which is not integrated in the curriculum.

Figure 3–6: Voluntariness of course participation



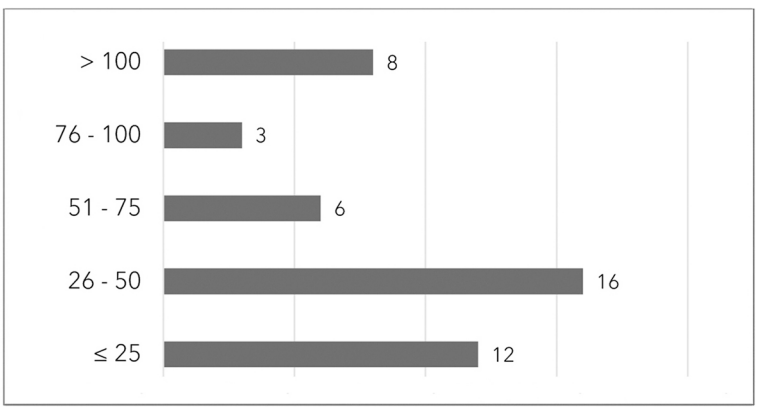
The average duration of courses is represented in Figure 3–7. 17 courses (38 %) last less than 13 weeks, the most common duration of courses is 13 to 16 weeks (22 responses, 49 %), and only 6 (13 %) courses last longer than 16 weeks.

Figure 3–7: Course duration (in weeks)



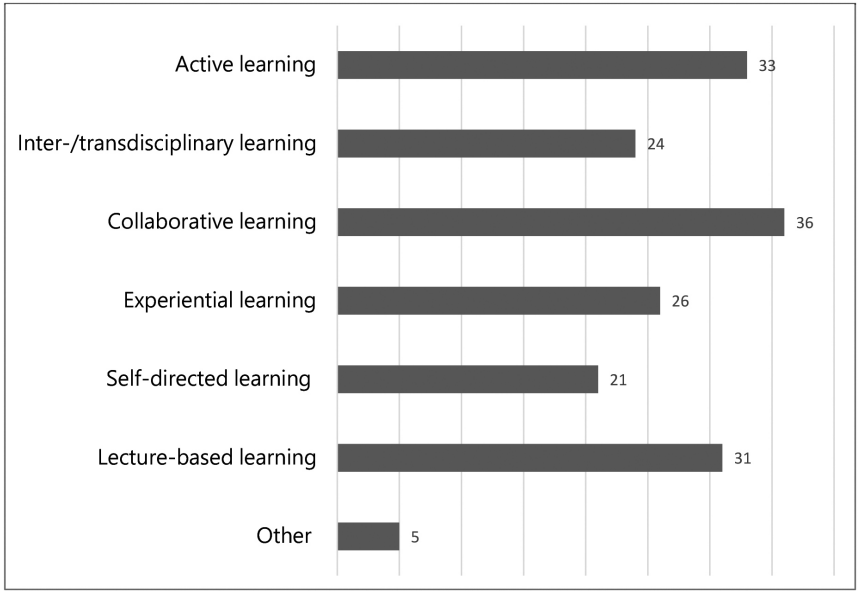
The average group size of courses is represented in Figure 3–8. 12 courses were focused on smaller classes of less than 25 students, 16 courses had a standard group size of 26–50 students, 9 courses had larger group sizes of either 51–75 or 76–100 participants, and 8 courses had large group sizes of more than 100 students.

Figure 3–8: Group size



Teaching approaches used in courses are represented in Figure 3–9. Multiple choices were allowed. Most of the courses applied collaborative learning (36 times indicated), active learning (33 times indicated) and lecture-based learning (31 times indicated). Inter-/transdisciplinary learning was applied in 24 courses, experiential learning in 26 courses, and self-directed learning in 21 courses. Five times it was also reported that other teaching approaches are used in the course.

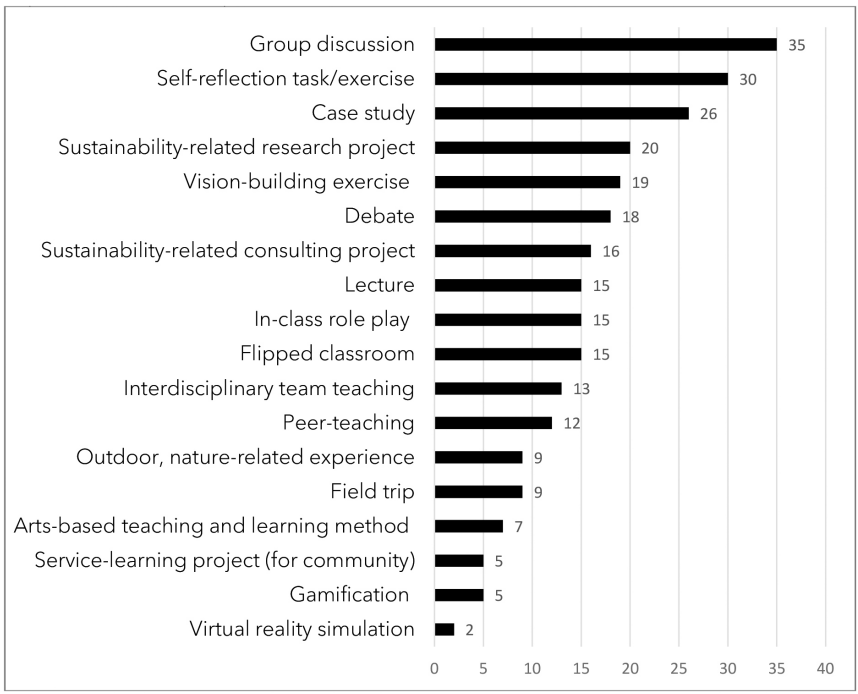
Figure 3–9: Teaching approaches



In terms of teaching methods respondents were requested to indicate the importance of different methods in the context of their course by using a scale ranging from none to very high. Figure 3–10 presents how many times individual teaching methods were indicated as being of high or very high importance. The results show that group discussions (35), self-reflection tasks/exercises (30) and case studies (26) were most frequently indicated as relevant teaching methods. Besides, sustainability-related research projects (20), vision-building exercises (19), debates (18), sustainability-related consulting projects (16), lectures (15), in-class role plays (15), and the method of flipped classroom (15) were indicated relatively often as important. The methods of interdisciplinary

team teaching (13) and peer-teaching (12) were indicated as being relevant by around one quarter of respondents. Finally, the least frequently mentioned teaching methods were virtual reality simulation (2), service-learning projects (for the community) (5), field trips (9), outdoor, nature-related experiences (9), gamification (5) and arts-based teaching and learning methods (7).

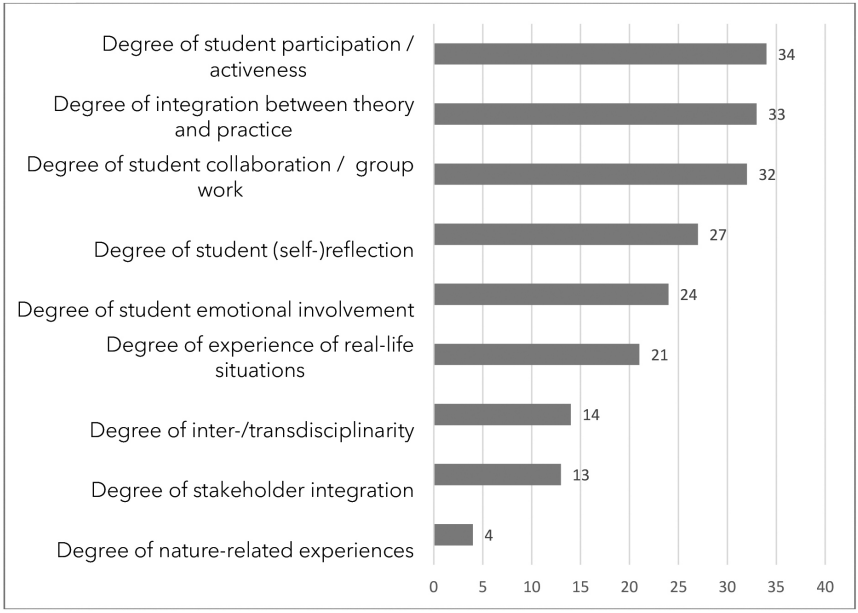
Figure 3–10: Teaching methods



Respective the nine pedagogical impact variables, respondents were requested to assess how their courses rank on them using a scale ranging from none to high. Therewith, respondents indicated the height of the present degree of different teaching characteristics (e.g. student participation/activeness or experience of real-life situations). For each of the nine variables, it was analysed how often respondents indicated a high degree (see Figure 3–11). The teaching characteristics most often indicated as being present with a high degree were student participation / activeness (34), integration between theory and practice

(33) and student collaboration / group work (32). The characteristic least often indicated as having a high degree was nature-related experiences (4).

Figure 3–11: Pedagogical impact variables (number of respondents indicating a high degree)



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