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GREEN TRANSITION – CHANGING THINKING PATTERNS AND ACTIONS IN PRACTICE

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Abstract

To ensure possibilities to economic growth and prosperity in a long-term basis, the societies need to find ways to preserve natural resources and start acting more responsibly and sustainably. In this paper we adopt an educational approach to inform actors in different sectors of our society. We introduce an online 5 ECTS course that aims to increase the awareness of green transition and the capability of individuals for promoting sustainable behaviours both at personal and societal levels. The students familiarize themselves on the basic principles of sustainable growth, corporate social responsibility, behavioural change and promotion of sustainable behaviours, and apply this accumulated knowledge on innovating procedures to promote circular economy and the United Nations 2030 Agenda for Sustainable Development. The course was introduced as a novel method in student admissions process to two Master's in business administration programmes, which enabled us to reach large audiences for the introductory course. Our analysis of student feedback indicates a high interest in the topic among the students as well as preference towards the new qualification method in student admissions process. The students appreciate the possibility to learn already during the admissions process. We analyze our experiences and developmental work on an online student admissions course by applying the Digital Competence Framework for Educators (DigCompEdu).

Keywords: Green transition, green nudge, behavioural insights, sustainable behaviour, educational approach.

1 INTRODUCTION

The societies confront major challenges and pressure to act more sustainably at all levels to preserve the natural resources and to slow down, or even reverse, the climate change. Regardless the necessity to act more responsibly and sustainably, we need to ensure opportunities to economic growth and prosperity. Here we do not contrast the goals of sustainability and growth, but instead look for possibilities to promote growth in a sustainable manner in the societies. We aim at being agnostic about growth and understand the dynamic complexity of economies, as introduced by Kate Raworth [1]. In the transition we need contributions from several, different sectors in our societies, but recent reports on corporate social responsibility show that the impact of companies as sustainable innovation accelerators is crucial. The role of consumers or individual action should not be neglected either.

Behavioral insights and choice architecture in particular offer an approach to influence human choice behavior, and the approach may provide means to promote sustainable behaviors in society. The approach is human centric. It is central to understand the motivations, aspirations, contextual influences and the limitations of rational judgment in choice behaviors by applying knowledge from behavioral economics and other relevant behavioral sciences. A nudge is a choice architectural intervention that aims to influence people's choice behavior in a predictable way, but it does not reduce or limit the possible courses of action, nor does it change the cost of choice alternatives. Instead, nudges leverage people's inherent choice heuristics and biases. [2]

Behavioral insights have been in recent years applied to promote sustainable consumption and behaviours in societies. Behavioral knowledge can first be applied to explain the reasons and drivers behind irrational behaviours. For instance, consumers energy consumption behaviour often differs from the self-reported personal values and interests, i.e., there is a gap between intentions and actual behaviours, and these discrepancies may be explained by behavioural economics insights [3]. Studies show that peer influence and social norms can be influential in decreasing the energy consumption of households ([4], [5]), increase recycling [6] and increase the use of sustainable transport options instead of using a private vehicle for commuting purposes [7]. Spreading knowledge on behavioural insights can thus provide understanding on the behavioural barriers that prohibit the transition to sustainable behaviours, and choice architecture may further provide useful tools for promoting sustainable choices in the society.

Green nudges are practical interventions that aim to direct consumer's choice behaviors towards sustainable behaviours. Green nudges have in many cases proved to have an impact in increasing pro-environmental choice behaviours, but the use of nudges requires careful ethical considerations and evaluation of justifications [8]. Even though nudges are interventions that are argued to preserve the freedom of choice and designed to promote welfare (libertarian paternalism) [2], they are aiming to modify behaviors in a predictable manner by addressing inner motivation factors through behavioral heuristics and biases. It has also been argued that nudges can be divided to sub-types in respect to their transparency and whether they target automated or active choice processes. The type of nudge may further influence the analysis of ethical concerns and limitations. [9]

To advance the green transition, we need general insights on how to create more sustainable business models as well as insights on how to lead the transition. Deeper consumer insight promotes behavioural change, and by understanding how consumers and companies can co-operate in the green transition, our curricula aim at empowering students in search for resilient ways and good practices to enhance green transition. During the studies we challenge the growth paradigm, approaching a certain growth addiction critically. According to Raworth [1] we need a more agnostic view on growth and design should be regenerative by default. It is a question of finding the desired balance between environmental sustainability and economic viability [10] In business development, growth has usually been sought without regard to, for example, the finite nature of natural resources. Growth, on the other hand, has been seen as desirable because it facilitates the financing of welfare services in our society which means that we cannot overlook this concept either. In the online course we will present in this paper, we include both deeper consumer insights and a view upon sustainable growth.

In this paper, we adopt an educational approach by introducing an online 5 ECTS course that aims to increase the awareness of green transition and the capability of individuals for promoting sustainable behaviors both at personal and societal levels. Our goal is to increase interest in large audiences, and to motive students to learn more on the topic in the future. The course was introduced as a novel method in student admissions process to two Master's in business administration programmes, which enabled us to reach large audiences for the introductory course. Our analysis of student feedback indicates a high interest in the topic among the students as well as preference towards the new qualification method in student admissions process. The students appreciate the possibility to learn already during the admissions process. We analyze our experiences and developmental work on an online student admissions course by applying the Digital Competence Framework for Educators (DigCompEdu).

2 PEDAGOGICAL APPROACH AND ANALYSIS PRINCIPLES

Our online student admissions course had mainly two aims, to recruit suitable students for our Master's programmes (entrance exam) and at the same time create a learning experience focusing upon a topical subject. When creating the content and assignments for the course, we also partly used a pedagogical model for online courses that was introduced at our University of Applied Sciences in 2020 [11]. The model describes the learner's learning journey and the different important steps that should be considered in that process from the very beginning, i.e., assignment creation, group dynamics and creation of different synthesis of lessons learned as well as the evaluation process. Because the course was also an entrance exam, we did not use any tools for group dynamic creation or dialogue. We also used the Bloom's taxonomy as well as the European Qualifications Framework on level seven. In the Bloom's taxonomy we used all the levels but with a stronger emphasis on analyzing, evaluating and creating.

To analyze the process of creating our course we lean upon the so called Digicompedu framework presented by Redecker [12]. The framework includes 22 elementary competences organised in 6 areas [12]. The six areas are professional engagement, digital resources, teaching and learning, assessment, empowering of learners and facilitation of learners' digital competence. We analyze the process of creating our online student admission course from the perspective of the areas teaching and learning, assessment, empowerment of learners and facilitation of learners' digital competence.

We will also use the Digicompedu framework when analyzing the student feedback of the course. At the end of the course the students were requested to fill in a feedback questionnaire where they evaluated the following statements on the 5-point likert scale (1) Strongly disagree; (2) Fairly disagree; (3) Neither agree nor disagree; (4) Fairly agree; (5) Strongly agree:

- Based on my personal experience, participation in a course is a sensible method for indicating my competences

- If I ever apply for a study place again, I will rather participate in a student admissions course than in a traditional entrance exam
- Assignments were clear
- The content of the course was interesting

In addition to the four quantitative answers on the statements, the students could leave open feedback on the following questions:

- What kind of other feedback would you like to give on this course?
- What kind of other feedback would you like to give on students' admissions based on studying a course

3 RESULTS

In this chapter we present the results of our analysis. We first report the findings when we reflected on the process of creating the students' admissions course through the DigCompEdu framework. Thereafter we report the student feedback from the course.

3.1 Findings in respect to the DigCompEdu framework

3.1.1 *Teaching and learning (Area 3)*

The estimated number of students who might enrol in the course was 500, which meant that we had to prepare thorough instructions and indicate the individual student's progress in the course clearly on the learning platform. We interacted with the students collectively, giving the same information at the same time for everyone on the learning platform (timely and targeted guidance and assistance). With a large group of enrolled students, we needed an efficient way of communicating to enhance effectiveness. We also needed to ensure that we inform all students equally due to the entrance exam nature of the course.

All assignments in the course were individual tasks, which is atypical for courses at Laurea UAS. We normally emphasize co-creation activities, but this was not possible as we emphasized the entrance exam perspective where students do not communicate with each other while concentrating on indicating their personal competences. Furthermore, since the students were applicants to a Master's programme some of the students may prefer to keep their applicant status confidential and not to disclose it to all other applicants, which also limits the possibilities to group work in assignments. Confidentiality also ensures that the students had minimal possibilities to interact with each other during the course, which may even lead to academic dishonesty in online studies [13]. The learning during this course was thus more of self-regulated learning where learners could "plan, monitor and reflect on their own learning, provide evidence of progress, share insights and come up with creative solutions" [12].

3.1.2 *Assessment (Area 4)*

The assessment during this course was partly done automatically and partly after the course had ended. We used multiple-choice quizzes in three out of five study modules on the course, and these assignments were automatically evaluated directly after the completion of the task. The students were informed only of the total score. We decided not to give any other feedback than the total score due to the course's entrance examination function.

After the course had ended, we evaluated the remaining assignments, and the students were informed of their scores of each assignment at the time when results of the student selection process were published. For more detailed feedback the students could contact the teaching staff at a given time window by phone. This feedback procedure by phone complies with the methods previously used in our entrance examinations for Master's programmes.

We had the possibility to monitor students' activities with the tools available on the online platform. This enables us to ascertain that the students were able to progress on the course.

3.1.3 *Empowering learners (Area 5)*

We created thorough guidelines how to proceed in the course so that all learners would understand and access the assignments in an appropriate way. Part of this process was the pretesting of the different steps in the course in the role as a student. To address special needs and questions we had stated how to

communicate with us individually. We aimed at giving answers as quickly as possible, mostly within two hours.

The different assignments facilitated also “deep thinking and creative expression” [12] by asking for solutions to societal challenges. The answers were handed in as PowerPoint presentations. This demanded the student to use the theoretical models to create a solution and present it concisely. We also used video presentations, so that students could show how they were able to verbalize their answer in a convincing way. (In the video task students could also use different ways).

3.1.4 Facilitating Learners' Digital Competence (Area 6)

The nature of our course did not give much space for creating the digital competences of learners. Maybe we even took for granted that all students know how to use the tools and assignments in a digital classroom. We provided technical support in our organization and explained how to find the reading material. We chose articles and videos that were open access, so that we did not have to use material that was only accessible through our library portal. At the beginning of the course, we used an informative video, provided by our organization, to tell how the digital classroom worked and how to contact the helpdesk in case of problems. The first entrance exam course and its feedback also provided necessary information to be able to adjust minor technical problems and unclear instructions.

3.2 Student feedback

Altogether 535 students were enrolled on the course. 261 students successfully passed the course and 173 student gave us feedback at the end of the course by filling in the feedback questionnaire. Altogether the students were pleased with the student selection method. Participation on a course was experienced as a sensible method for indicating personal competences (average 4.5 on the scale from 1 to 5). The students prefer the participation on a student admissions course over a traditional entrance exam if they ever decide to apply for a study place again (average 4.4). The student report that the assignments were clearly presented (average 3.9) and the content of the course was interesting (average 4.7). These quantitative feedback results have earlier been reported in the publication series of Laurea University of Applied Sciences (in Finnish) [14].

The course was, as mentioned before, also an entrance exam, and some students could not see the difference from a normal course. We emphasized in the introduction of the course, that the course is not following the same format as an online course normally, because we are also screening which students are accepted in two Master's programmes. The feedback showed that the expectations for the course was similar as for a normal course, students wanted more guidance how to answer and interpret the assignments and wanted us to change some details. During a normal entrance exam, we never answer any questions about the assignments and are not in dialogue with the students about the content. The students were told that we are not able to change anything in the assignments as some of the students had already submitted their answers. If we noticed some technical issues, we communicated it to all the students through the message board.

In the feedback some students considered some of the articles to be too complicated and suggested that we should use some easier texts in the future. As Master studies are research-based studies and preparing for studies for a doctoral degree, it is important to get acquainted to an academic writing style. When we are recruiting new students for our Master's programmes, we aim at finding motivated students that can accomplish studies on an EQF-level 7. This means that the students should show possibilities and interest in critical thinking, new knowledge, and combining of research from different fields. To facilitate understanding of the subject we also pointed out some of the figures in the articles, to be used in the analysis. This made the subject more accessible.

The course was interesting, and the learning material was well put together. It has been motivating to influence the schedule yourself and the way you study. The implementation was versatile, and the lessons learned are thus best remembered. The body and instructions of the studies were clear. Thank you so much to the teachers in charge.

The assignments felt a little challenging and it's hard to say before the review if you've understood the tasks correctly. The problem was that there was no one with whom to discuss about assignment and what it means what has always been in previous studies. However, the tasks were wonderfully diverse, and I was really looking forward to see what was to be expected next. In many cases, online courses have only one larger learning task, for which you need to find the material yourself. This eats away at motivation, but this course maintained motivation and interest to the end. It would have been better to

plan your time if you had seen more of the upcoming tasks than just "essay", "multiple choice" or "video". Now I felt like I had to do it blind.

4 CONCLUSIONS

The aim of our online course was twofold: 1. We wanted to present an important combination of individual action for sustainability with a more general view upon sustainable growth. 2. The course was an entrance exam with 77 places for new students to enrol in our programs. (535 registered for the course). Based on the student feedback we were successful in capturing the interest of students on the topic of the course. The students who successfully passed the course were also able to show their capabilities in applying the knowledge acquired in practice-oriented assignments evaluated by the teachers.

The impact the learning may have had on students' competences to enhance green transition in other contexts besides the course remain here unexplored and could provide one important possibility for a follow up study in the future. It is well-known that people may not always act according to their good intentions and knowledge, as the actual behaviour might differ from the stated preferences. This so-called intention-action gap may also impact the transition towards more sustainable consumer behaviours. [15] An entrance exam online course reaches far more individuals than a traditional entrance exam on campus, and in a course format the applicants can reach a deeper level of learning. Our aim is to create a societal impact by having assignments that put the learned theory into practice. By emphasizing a smooth experience during the online course, we support new sustainable practices.

Our experimentation of using an online course as a method in student admissions process proved to be successful. Based on the student feedback the students were pleased with the method, while some the students would have appreciated more support on the course than we could provide considering the course was a part of the student admission and evaluation process. We have continued using online courses in evaluating the skills of the prospective students in the admission process. Currently the course format is becoming a prominent method, leaving the traditional intake examinations in the minority.

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