

Gamified Workshops for Conscious Consumption: Retail School Labs

Introduction

Understanding, analyzing, and keeping track of consumer behaviour is critical for each type of business. Retailers such as supermarkets, sports markets or malls are acting as intermediaries between the product suppliers and billions of customers. In the past years, people's purchasing behaviour has changed due to digitalization and purchasing volumes increased dramatically. However, the worldwide purchasing behaviour has reached a level, which cannot be considered as 'sustainable' in any of the three dimensions (i.e. economical, ecological, social) (FAO, 2011; Milne & Gray, 2013). For example, one third of the total food production worldwide are not consumed, but wasted (FAO, 2011). Purchased goods in industrial societies have a major global environmental impact. Conscious consumption aims at changing unsustainable patterns of consumption and requires fundamental changes in the way people consume and purchase goods for a sustainable future (UNEP, 2010). One goal of the sustainable development goals of the United Nations (No. 12) is to support consumers to make responsible purchasing decisions by creating information and awareness about the effects of individuals' purchasing decisions (U.N., 2016).

In this study, we demonstrate how we use gamified workshops (so-called Retail School Labs) to educate people about sustainable purchasing behaviour. Gamification is a powerful method to encourage a specific (desired) behaviour. Since the beginning of human history, people have been playing games for pleasure or for monetary purposes. The theory of homo ludens, which means 'the playing man', is a basic theory developed in 1939 by the cultural theorist Johan Huizinga. The homo ludens theory discusses the importance of playing for people and society. Huizinga (1939) claims that people enhance their capabilities and knowledge by the process of playing. Playing is a central factor in human culture that is essential for societies' development. As a result, games can be found everywhere: sports, arts, theatre, carnival or rituals of any kind. The homo ludens theory represents a standard reference for game design (Huizinga, 1939).

However, it does not mean that playing is completely isolated from serious concerns. Ludic actions represent the origin of cultural underpinnings, such as art, religion but also education and behavioural changes. Games are considered as relevant to learning about sustainability, since games help the learners to shift their personal attitudes and practices in a sustainable manner (Dieleman & Huisingh, 2006). Gamification represents one form of gaming as a novel approach aiming at engaging people using game elements such as points, competition, immediate feedback, which can even be used within a non-game context, instead of full-fledged games (Liu, Santhanam, & Webster, 2017). Previous studies found that gamification can efficiently be used to change people's behaviour and attitude towards sustainability and to increase people's learning (Kasurinen & Knutas, 2018). In addition, studies show that the educational use of game elements triggers students' active learning processes that subsequently improves students' learning outcomes, which is critical for creating awareness about sustainable transport (Kapp, 2012). For example, Jones, Madden, and Wengreen (2014) found that using gamification has motivated students to consume more than one third more vegetables and fruits.

Method

Based on the experiences of previously designed gamified workshops (labs) and a literature review, a first concept for the retail school lab was developed together with a panel of experts. During five rounds of expert panels, the concept was developed and refined. The retail school lab is organized in form of a field trip, since field trips are appropriate to create long-term learning and behavioural change effects (Putz, Treiblmaier, & Pfoser, 2018). After the literature review and the rounds of expert discussions, the material and gamified elements for the retail school lab were developed and pre-tested with teachers and professors.

The first retail school lab was conducted in December 2019, three more will be conducted in the first quarter of 2020. To be able to analyse the effects of our retail school labs on people's awareness of conscious consumption, we do quantitative assessments before and after the retail school labs by handing out written questionnaires.

Schedule and Program of a Retail School Lab

After the literature review, expert panels and pre-tests, we came up with a program for the retail school labs as presented in Table 1. In the morning, the students are randomly assigned to groups and start with their first task. The students have to assemble their table and chairs, which will serve as their creative working space for the retail school lab. Afterwards, the students receive a questionnaire about their opinions of the retail sector. As a next step, the students receive an interactive lecture – the so-called retail safari. In this lecture, we discuss the worldwide food waste, new trends and developments in the retail sector and the role of each individual to influence these developments. Afterwards, the students play Logistify.Retail, which is a new gamified application in which students have to make purchasing decisions for consumer goods (e.g. juice, meat). In the game, background information about the environmental footprint of the products are displayed. The game will be available for free download online.

Time	Program	Game Elements
09:00 – 09:30	Interactive start: Assembling Tables and Chairs	Cooperation
09:30 – 09:45	Questionnaire I	
09:45 – 10:15	Retail Safari	Storytelling Time Constraint Competition
10:45 – 11:30	Logistify.Retail	Gamified application
11:30 – 12:15	Lunch Break	
12:15 – 14:30	Future Retail Ideas- Design Thinking	Time Constraint, Cooperation
14:30 – 15:45	Pitching, Award Ceremony & Dismantling the Tables and Chairs	Storytelling Rewards (Price & Badges)
15:45 – 16:00	Questionnaire II	
Whole day elements	game Leaderboard, Immediate feedback, & Cooperation	Clear goals, Competition

Table 1: Schedule of a Retail School Lab

After the lunch break, the afternoon is dedicated to (guided) creative working of the student groups using the design thinking method. Each group of students receives a pre-fabricated 'persona' which

encompasses individual shopping preferences and needs. For this person (persona), the students have to develop a retail solution and create a prototype to present this solution. In the end, students have to do a 2-minutes pitch presenting the perfect sustainable shopping experience solution for their persona. Figure 1 shows a group of students presenting in a 2-minutes pitch their perfect sustainable shopping prototype to a critical jury of evaluators (professors and research members of our institute). The tables of each student group (which they assembled at the beginning of the workshop day) are used to present the results to the jury and the other students. The day is closed by re-assembling the tables and chairs and by conducting the final assessment (written questionnaire).



Figure 1: Students presenting their prototypes at the end of the retail school lab & assembling their co-creative tables

Preliminary observations, conclusion and future research

The goal of this study is to show how a gamified retail school lab can be used to create awareness for conscious consumption in terms of purchasing behaviour. The first retail school lab shows that the students were totally immersed in the topic. The feedback of the teachers as well as students was very positive. The use of gamification elements ensured that the students' attention and readiness to learn was substantially higher than in a traditional lesson with oral lectures. On the whole, they perceived the retail school lab as an insightful and entertaining day off from school.

For future research, we suggest to evaluate the longitudinal effects of the workshop and assess if there are any demographic characteristics (gender, age, education,...) which support or impede the effectiveness of the gamified retail school labs.

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