

GAMIFICATION AND FACILITATION METHODS IN SUSTAINABILITY TRAINING FOR SMES

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Abstract

Issues and requirements related to sustainable development, both at the interfaces of companies and within broader value chains, challenge SME personnel in identifying and developing the necessary and sufficient factors. Some SME employees have found it challenging to identify areas of sustainable development relevant to their operating environments. In these contexts, the need to develop one's own competence is recognized. Still, after prior training several years earlier, the effectiveness of one's study techniques and the continued employability of studying while working full-time are doubted. To meet the requirements of sustainable development, both as part of value chains and to maintain competitiveness with end users, SMEs must ensure that their personnel possess sufficient sustainability competence within their operating environments. To meet these needs, studies on sustainable development were conducted that employed gamification, for example, through the facilitation of Lego Serious Play and Cambridge Value Mapping. These approaches were chosen to lower the threshold for participation in the training and to enable a more concrete understanding of the interfaces and the development of sustainable development in one's own operating environment. In addition, gamification and various facilitation methods are part of higher education. The methods are seen as motivating, participatory, intensive, and meaningful ways of studying, which make the material better understood and learning more meaningful. Flexible support, combined with gamification and facilitation, can enhance learning when examined from different perspectives. In gamification, learning progress can be monitored, and creative task types can be integrated into the task design. In this article, we discuss gamification and facilitation methods in online studies on corporate responsibility aimed at SME personnel, and in hybrid studies on sustainability, which included workshops conducted in face-to-face meetings using the Lego Serious Play and Cambridge Value Mapping methods. Participation in the set of tasks on corporate responsibility, implemented on the SEPPPO game platform and in the workshops, was enthusiastic from the perspective of responsible SME operations. According to feedback, participants reported receiving value for their time and that their competence had increased through gamification tasks and study-related work methods.

Keywords: *SME, higher education, sustainability, gamification, facilitation.*

1. Introduction

Based on discussions with Finnish SME representatives who have participated in Laurea UAS sustainability studies, the simplification of the EU's sustainability reporting requirements in Omnibus I (Baumüller, 2025; Council of the EU, 2025) does not appear to have reduced the sustainability requirements already in place in companies' value chains. Based on the discussions, sustainable and responsible cooperation among partners and across value chains, among stakeholders and end users, will continue to strengthen the planetarity of future generations. The challenge in strengthening this is to maintain up-to-date information and expertise on EU-level directives and regulations in relation to national legislation. To enhance SMEs' responsibility and sustainability competence, training organisations have tailored continuing education programmes for companies. Some of the SME staff representatives may have been out of school for a long time since completing their previous studies. For this reason, the readily accessible concrete teaching and facilitation methods used in the training play a significant role in making the study meaningful, practical, and motivating. This article discusses gamification and facilitation methods that have received positive feedback from participants in the VALIOT project of Laurea and LAB University of Applied Sciences, and the VASTUUT project of Laurea University of Applied Sciences.

2. Design

The challenge in developing and promoting sustainable development and responsible business in SMEs is, among other things, maintaining and enhancing the competence required to keep pace with changes in regulations and related requirements, and to integrate them into everyday practices and business operations. The starting point for planning and designing studies targeting SME personnel was to connect theoretical components to participants' business environments. This was implemented in the studies, for example, by reflecting on each participant's current business environment and by selecting a range of easily accessible study forms to support content processing, such as gamification, Lego Serious Play (LSP), and Cambridge Mapping Value Tool (CMVT) workshops. Earlier individual use of these methods in the sustainability context by Laurea UAS personnel has motivated students and company representatives, even though they are not used systematically in education, but in business. Therefore, these methods were considered encouraging and feasible when sustainable business development and innovation were considered.

2.1. Gamification

In their articles, Stieglitz et al. (2016) and Lenssen et al. (2013) highlighted gamification as a motivating, participatory approach to studying more intensively and understanding materials, making learning more effective and meaningful. Jääskö et al. (2021) and Alsawaier (2018) argue that gamification is the use of game design elements, such as involvement, problem-solving, and experimental activities, to create added value for users. Game-based learning (GBL) is motivating and offers experiential learning in a risk-free environment. It is practical, generating knowledge through, for example, practical experiences, reflection, and feedback, emphasizing joint knowledge production and social learning through dialogue. The flexible support that is part of game-based learning can significantly impact learning as interest increases, for example, thanks to adaptive support, thereby strengthening the achievement of goals (Koskinen, 2023; Buckley & Doyle, 2016). Breuer et al. (2022) state that examining and redefining perspectives from the outside and studying the problem's impact on innovative activities are important.

3. Objectives

The goal of using gamification and facilitation methods is to maintain a meaningful, motivating approach to integrating knowledge with practical, business-related aspects of sustainable development and responsibility, thereby lowering the bar for participants whose studies were completed several years ago. In addition, at the game platform level, the participant can track their own progress and receive immediate feedback on the integration of sustainable development and responsibility factors into everyday business activities. This approach aims to enhance independent information retrieval and competence while benefiting the long-term competitiveness of the participant's background company.

4. Methods

The selection and utilisation of the methods used in the studies of responsibility and sustainable development discussed in the article were made possible by the licensed licences and certified facilitation trainers at Laurea University of Applied Sciences. Positive experiences have been gained from applying the methods in studies and business development, as well as through collaboration with RDI companies.

4.1. SEppo-platform

On the Seppo platform, the learning environment can comprise gamified learning, artificial intelligence, and authentic learning environments, thereby putting learning into practice and supporting real change. When using an AI-based game engine, SAIGE artificial intelligence transforms materials into gamified learning experiences. In a 3D environment, SolidSafe can be used to develop customer-specific 3D environments based on real operating environments. In games built on the SEppo platform, participants are engaged through scoring, levels, leaderboards, feedback, and branching game paths. To progress through the game, you can use task types, such as multiple choice, missing word, creative tasks, or combining pairs. The answers suitable for the task can be text, audio, video, or images, from which you can choose one or more methods. The actual gameplay can take place indoors, outdoors, remotely, or on-site using platforms such as images, location-based maps, and 360° images. The participant progresses along paths on the game platform, and tasks can be opened to participants individually, in stages based on role and progress, personalized to the learning path, or all at once. Feedback can be provided in real time, via automated feedback, or in a personalized manner after assignments have been submitted. (Liitutaulu, 2025).

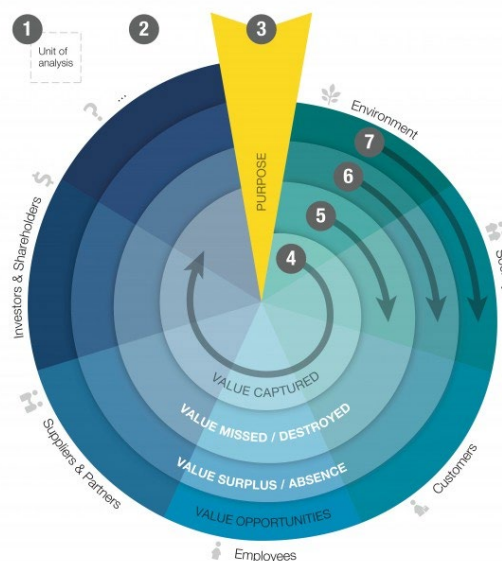
4.2. Lego serious play

LEGO® SERIOUS PLAY® (LSP) is used to engage, inspire, and enable players to come up with ideas for faster implementations. The method emphasizes a participatory process, outsourcing thinking and facilitating communication and problem-solving, for example, among an assembled team. The technology is grounded in research on psychology and learning, among other areas. The starting point is that the participants do not have all the answers, and success depends on sharing information and taking all participants into account. In addition, it is grounded in mutual appreciation and participants' willingness to take responsibility. This is how collaboration and interaction lead to sustainable business. LSP can be used to develop, for example, business and communications by combining participants' gamification with strategic ideas. The use of Legos facilitates creative thinking and imagination, as well as the expression of honest opinions (Kristiansen & Rasmussen, 2014). Colasante & Fitsilis (2020) report that they have used LSP to empower adult learners, which aligns with LSP's motivating, participatory, and engaging approach.

4.3. Cambridge value mapping tool

The Cambridge Value Mapping Tool (CVMT) is designed to structure the value creation in sustainable business operations. CVMT work considers and structures the value created for the business's stakeholders under the existing business model, as well as the threats and the concrete and intangible value exchanges in the long term. The work identifies where value is created and where it is not. The identification uses a visual approach to assess successful and unsuccessful value creation in the business network from the perspectives of different stakeholders, taking into account sustainable development, for example, in terms of the environment and society. Through the work, participants gain a deeper understanding of their business's value creation and identify new economic, social, and environmental benefits. The areas are examined and considered using the visual outline below, which focuses on, for example, the business product, stakeholders, purpose, current value, hidden or past values, value surplus or deficit, and new value opportunities (University of Cambridge, 2026).

Figure 1. Visual Cambridge Value Mapping Tool, (University of Cambridge, 2026).



5. Discussion

The starting point for selecting gamification and facilitation methods for the project studies was the sustainable development of SMEs. Using the different task formats and game levels of the SEPO game platform, the participants (90) examined the company's starting level of sustainable development. They considered the current state of the business's economic, social, and environmental responsibilities and related them to the company's goals. After the examinations took place, sustainable development and responsibility became concrete and took shape for the participants through everyday business activities, for example, in relation to daily routines and planning, thereby strengthening their competence. There were five levels of play, the first of which examined the prevailing attitude and existing sustainability practices in the company. The following three levels included economic, social, and environmental responsibility, in connection with which the participants listened to podcasts and read articles, and based on which they

considered similar issues from their own operating environment. On the last fifth level, the participants reflect on the topics discussed in the company's future operating environment.

The Cambridge Value Mapping Tool (CVMT) has been developed specifically for value creation in responsible and sustainable business. The participants of the CVMT workshop (10 participants) first used an example case to consider value-creation perspectives, including existing value, lost value, and new opportunities for value creation. After discussing the example, the participants focused on creating value for business stakeholders in their respective fields or companies, using the circles of a visual framework to step-by-step examine perspectives on responsible, sustainable value creation over the long term. The participants felt that the gradual approach to value creation facilitated addressing a challenging topic and gained new ideas about the possibilities of sustainable and responsible value creation in business.

In the Lego Serious Play workshops (36 participants), participants were divided into small groups and, after an initial introduction to Legos, built with them using warm-up tasks within the allotted time. Subsequently, LEGO building was combined with storytelling, enabling all participants to create their own structure and story based on the exact instructions. After building exercises with Legos, the participants developed concepts suitable for responsible everyday use, drawing on the economic, social, and environmental dimensions of responsibility. The responsible and sustainable concepts developed with LEGO were presented clearly and concisely to the other participants. The participants discussed the creation of flight of ideas by outsourcing concept ideas to Legos and by engaging strongly with Legos in connection with their work with Legos.

6. Conclusions

In discussions held in connection with their studies, participants in the SEPPo game platform, the Cambridge Value Mapping Tool, and Lego Serious Play workshops reported that they apply the ideas, values, and innovations they have learned and brainstormed in the game and workshops to their business and everyday activities in their operating environment. The participants felt they had combined theory on responsibility and sustainable development with practical business values and innovations, and that they had strengthened their practical competence in these areas. In the final discussions, the participants stated that they had either already shared, or would share with their colleagues, what they had learned or developed in the game and the workshops on developing responsible and sustainable business.

Based on participants' shared experiences, the facilitation methods employed individually, and the game platform supported the integration of theoretical knowledge and practical measures, thereby deepening understanding. Combining these three operating methods and the continuum they create constitutes an alternative, based on feedback from discussions conducted as part of a broader study module.

One limitation was the use of methods as separate entities within individual study modules, with no option to combine them into a single, comprehensive framework. As a result, the participants lacked a clear, broad understanding of the entity and continuum of connections between sustainable development and the understanding of sustainability-related information and practical business at all levels, which were examined and developed using the methods.

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