

Teaching Sustainability Leadership in Manufacturing: A Reflection on the Educational Benefits of the Board Game Factory Heroes.

Datenbank

TEMA, Copyright WTI-Frankfurt-digital GmbH

Deskriptoren

Ökoeffizienz; Ressourceneffizienz; Lehren (Unterrichten); Lehrling; Entscheidungsfindung; Serious Gaming

Abstract

Sustainability is a complex and interdisciplinary topic which can be challenging to teach. We need to adopt a student-centred and participative approach to invite learners to reflect on societal challenges and their role as individuals to tackle them. Therefore, we need appropriate educational tools to encourage creativity, an open mind and broad thinking to raise awareness and teach about sustainability. Gamification and serious games have recently emerged as promising tools to engage students by immersing them in various complex situations and giving them an opportunity to play an active role in decision-making. Gamification lends itself particularly well to sustainability education as it provides a safe and fun environment for students to experiment, to take complex decisions and to reflect on the impact of their actions. It can deliver the necessary skills to address today's global challenges: envisioning, critical thinking and reflection, systemic thinking, collaboration and decision-making in uncertain conditions. This paper introduces a board game, Factory Heroes, and discusses its potential in raising awareness and fostering the skills and knowledge for sustainability leadership in manufacturing. Early findings from 8 pilot sessions are presented along with some of the benefits and pitfalls of gamification. /// Copyright Elsevier B.V. Reproduced with permission.

Autor

Despeisse, Melanie

Quelle

LCE, CIRP Conference on Life Cycle Engineering, 25, in: Procedia CIRP * Band 69 (2018) Seite 621-626 (6 Seiten, 21 Quellen)