ECODIGITAL FRÉTTABRÉF

FRÉTTABRÉF NR.2 | NÓVEMBER 2023

EFNI

- EcoDigital verkefnið
- Viðtöl við kennara um reynslu þeirra og upplifun á sjálfbærri stafrænni væðingu í skólum
- „Vinnusmiðja“ fyrir grunn- og framhaldsskólakennara í september 2023, í Reykjavík, Íslandi
- Námsefnisþróun
- Rannsóknargrein birt: “Teacher’s Experience and Perceptions of Sustainable Digitalization in School Education: An Existential Phenomenological Study"

ECODIGITAL VERKEFNIÐ

EcoDigital: Aðgerðir til að draga úr umhverfisáhrifum stafrænnar tæknivæðingar er Erasmus+ KA2 verkefnið hófst í nóvember 2022 og lýkur í apríl 2025.

The EcoDigital: Markmið verkefnisins er að hvetja nemendur, kennara og námssamfélög til að átta sig á að stafrænni tæknivæðingu fylgir rusl og sóun. Mikilvægt er að þróa jákvæðar breytingar á hegðun ungs fólks með það að markmiði að koma slíkri hegðun á framfæri í samfélaginu.
Markmiðið er jafnframt að þróa fræðsluefni og útbúa verkfæri sem ætlað er að efla græna og stafræna færni í grunnskólum og framhaldsskólum, fyrir nemendur og kennara. Vitundarvakningu sem mun einnig ná almennt út í samfélagið og fá fólk til að leiða hugann að því að til dæmis, skýið taki ekki endalaust við, þar sem það er knúið áfram af orku, mikilvægi þess að hreinsa tölvupóstinn o.s.frv.

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VIÐTÖL VIÐ KENNARA UM REYNSLU ÞEIRRA OG UPPLIFUN Á SJÁLFBÆRRI STAFRÆNNI VÆÐINGU Í SKÓLUM

In May & June 2023, 29 interviews were conducted in Iceland, Netherlands, Cyprus & Greece, Romania with Primary and Secondary School Teachers to gain insight into their perspectives on global warming and the environmental impact of digitalization. During these interviews, the teachers were asked ten questions, which covered a range of topics related to environmental awareness and sustainability.

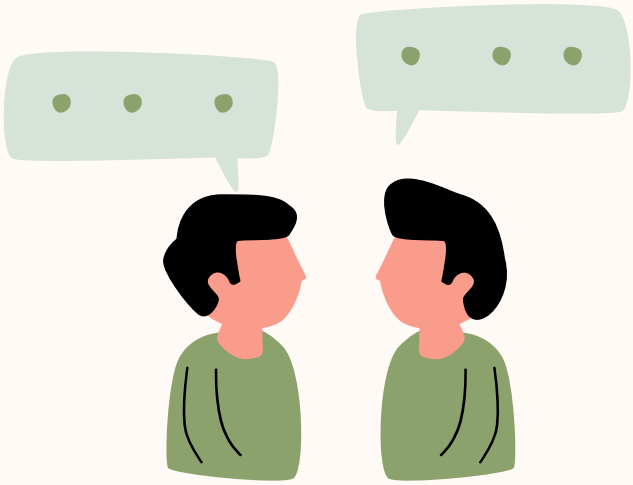
Firstly, the teachers were prompted to share their initial thoughts when hearing about global warming and provide an explanation. Subsequently, they discussed whether they had incorporated activities on the environmental impact of digitalization in their classrooms and the importance of educating students on this topic.

Moreover, the teachers were asked how they would integrate discussions about the environmental impact of digitalization into their teaching methods. Additionally, they addressed any challenges or resistance they encountered while discussing environmental issues with their students and how they handled such situations.

The level of students they taught was also explored, along with the methods they employed for different age groups. For instance, they discussed whether they used educational games to engage primary school students.

Furthermore, the teachers were asked about the actions they could take to reduce their digital footprint and identified the three major concerns they had about global warming and its implications.

Another critical aspect covered in the interviews was the negative impact of digital transformation on the environment and the reasons behind their perspectives.
Finally, the teachers shared their opinions on whether digitalization had a positive or negative effect on the environment and sustainability, providing explanations to support their views.



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‘CAPACITY BUILDING WORKSHOP’ FOR PRIMARY & SECONDARY SCHOOL TEACHERS IN SEPTEMBER 2023, IN REYKJAVIK, ICELAND

IThe EcoDigital Capacity Building Workshop took place at the University of Iceland in Reykjavik on September 4th and 5th, 2023!

During the training, we had a fantastic turnout with 28 passionate participants, including dedicated teachers from the five partner consortium countries - Iceland, Romania, Cyprus Greece, and the Netherlands.

The main focus of this workshop was to dive deep into the crucial topic of digital waste. Our aim? To brainstorm innovative ways to reduce digital waste, inspire our students to embrace sustainability, and explore how each of us can make a personal impact on being
The participants were exposed to a diverse range of workshops and programs aimed at fostering a deeper understanding of the project and its various facets:
UI introduced the project to the participants and presented the first project results achieved so far.

Big Bang’s Experiential Sociodrama workshop encouraged participants to explore the sociocultural dimensions of digitalization workshop of environmental impact.

Stimmuli’s digitalization workshop shed light on pivotal role of technology in addressing and mitigating environmental concerns.

CSI’s workshop offered practical strategies for reducing the environmental impact of digitalization, promoting sustainable practices in the digital realm.

The Workshop by Centrul Judetean de Excelenta Galati delved into what individuals can do on a personal level to integrate sustainability on their daily lives.

SkillsUp Research & Training Services led a session on digitalization tools in education, emphasizing the importance of leveraging technology for educational purposes.

Finally, the workshop by Big Bang School shared valuable tips for educators on how to teach and promote a more sustainable approach to digitalization.

Together these sessions provided participants with a well-rounded education on the multifaceted world of sustainable digitalization.

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CURRICULUM DEVELOPMENT

The centerpiece of this project is the EcoDigital Curriculum, which is designed to provide students with a comprehensive understanding of the digital landscape and its environmental impact. Comprising six modules, this curriculum ensures that students are well-equipped to navigate the digital world responsibly.

The first module, "Digitalisation," introduces students to the pervasive nature of digitalization in our daily lives, shedding light on the various dimensions in which it affects us.

In the second module, "Cloud," students delve into the technical aspects of the cloud and its role in digitalization.

This foundational knowledge prepares them to explore the third module, "Cloud services and tools," where they gain access to a range of digital services and tools to bolster their digital skill set.

The fourth module, "Environmental impact of digitalization," delves into the ecological consequences of digital technology and offers detailed information on the environmental pollution linked to cloud usage and internet activities.

The fifth module, "How to make your cloud usage greener," empowers students to take responsibility for their digital footprint by presenting practical ways to reduce environmental impact.

The curriculum also engages students in sustainable digitalization through the sixth module, "Activism & Larping." This module encourages children to interact with real-life scenarios and offers two educational directions: one focused on environmental activism and the other on creative activities using live-action role-playing (larping) techniques. Through these modules, the EcoDigital Curriculum ensures that students not only become adept in the digital realm but also conscious stewards of our environment.

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RESEARCH PAPER RELEASE:

“TEACHER’S EXPERIENCE AND PERCEPTIONS OF SUSTAINABLE DIGITALIZATION IN SCHOOL EDUCATION: AN EXISTENTIAL PHENOMENOLOGICAL STUDY"

Tilgangur rannsóknarinnar sem greinin Teachers' Experience and Perceptions of Sustainable Digitalization in School Education: An Existential Phenomenological Study of Teachers in Romania, Greece, Cyprus, Iceland, and The Netherlands byggir á er að kanna vitund, reynslu og skynjun kennara á umhverfisáhrifum stafrænnar væðingar í skólanámi.

Greinin var birt í "Sustainability" journal, indexed in Scopus & ISI Web of Science, þessi grein breytir leiknum!

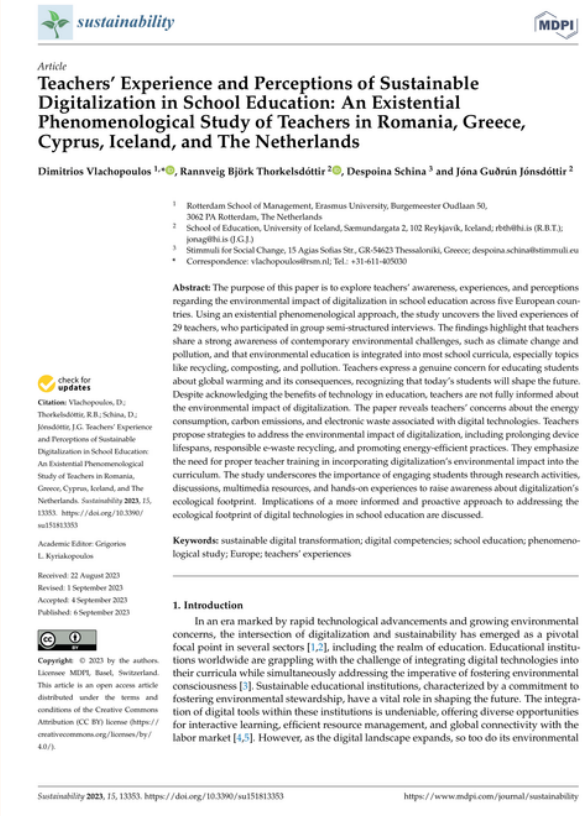
Helstu niðustöður eru að:

Kennarar lýsa áhyggjum af því að fræða nemendur um hlýnun jarðar og afleiðingar hennar og þrátt fyrir að viðurkenna kosti tækninnar í kennslu eru kennarar ekki að fullu upplýstir um umhverfisáhrif stafrænnar væðingar og leggja áherslu á þörfina að fella þann þátt inn í námskrá.

The paper explores:

- Innovative strategies proposed by teachers to mitigate these concerns, like extending device lifespans and advocating for energy efficient practices
- The crucial role of engaging students in research activities, discussions, multimedia sources, and hands-on experiences to boos awareness about the ecological footprint of digitalization.

Access the full paper here: https://lnkd.in/dXceBXiz



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Article

Teachers’ Experience and Perceptions of Sustainable Digitalization in School Education: An Existential Phenomenological Study of Teachers in Romania, Greece, Cyprus, Iceland, and The Netherlands

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Abstract: The purpose of this paper is to explore teachers’ awareness, experiences, and perceptions regarding the environmental impact of digitalization in school education across five European countries. Using an existential phenomenological approach, the study uncovers the lived experiences of 29 teachers, who participated in group semi-structured interviews. The findings highlight that teachers share a strong awareness of contemporary environmental challenges, such as climate change and pollution, and that environmental education is integrated into most school curricula, especially topics like recycling, composting, and pollution. Teachers express a genuine concern for educating students about global warming and its consequences, recognizing that today’s students will shape the future. Despite acknowledging the benefits of technology in education, teachers are not fully informed about the environmental impact of digitalization. The paper reveals teachers’ concerns about the energy consumption, carbon emissions, and electronic waste associated with digital technologies. Teachers propose strategies to address the environmental impact of digitalization, including prolonging device lifespans, responsible e-waste recycling, and promoting energy-efficient practices. They emphasize the need for proper teacher training in incorporating digitalization’s environmental impact into the curriculum. The study underscores the importance of engaging students through research activities, discussions, multimedia resources, and hands-on experiences to raise awareness about digitalization’s ecological footprint. Implications of a more informed and proactive approach to addressing the ecological footprint of digital technologies in school education are discussed.

Keywords: sustainable digital transformation; digital competencies; school education; phenomenological study; Europe; teachers’ experiences

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Citation: Vlachopoulos, D.; Thorkelsdóttir, R.B.; Schina, D.; Jónsdóttir, J.G. Teachers’ Experience and Perceptions of Sustainable Digitalization in School Education: An Existential Phenomenological Study of Teachers in Romania, Greece, Cyprus, Iceland, and The Netherlands. *Sustainability* **2023**, *15*, 13353. https://doi.org/10.3390/su151813353

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1. Introduction

In an era marked by rapid technological advancements and growing environmental concerns, the intersection of digitalization and sustainability has emerged as a pivotal focal point in several sectors [1,2], including the realm of education. Educational institutions worldwide are grappling with the challenge of integrating digital technologies into their curricula while simultaneously addressing the imperative of fostering environmental consciousness [3]. Sustainable educational institutions, characterized by a commitment to fostering environmental stewardship, have a vital role in shaping the future. The integration of digital tools within these institutions is undeniable, offering diverse opportunities for interactive learning, efficient resource management, and global connectivity with the labor market [4,5]. However, as the digital landscape expands, so too do its environmental

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