



Promoting healthy digital teaching and learning in higher education

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Introduction

Wellbeing in Higher Education

Wellbeing in higher education means that all staff and students can work and learn productively, contribute to and engage with university life and their community, and cope with life's normal stresses.

Educators' wellbeing is also affected by the workload and uncertainty, which in turn impacts student wellbeing⁴.

- High Student Wellbeing: positive outcomes¹
- Higher education institutions serve as platforms for knowledge as well as holistic student wellbeing^{2,3}



1. Cárdenas et al., 2022; Gutman & Vorhaus, 2012; Lyons & Huebner, 2016; Khatri et al., 2024.

2. Oades et al., 2011.

3. Riva E et al., 2024

4. Tormey R et al., 2021



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Introduction

Wellbeing in Higher Education

- Teaching Practices and Learning Environments¹
- Health risks from excessive sedentary behaviour – digital learning²
- Mental Health and Social Isolation in **online settings**²



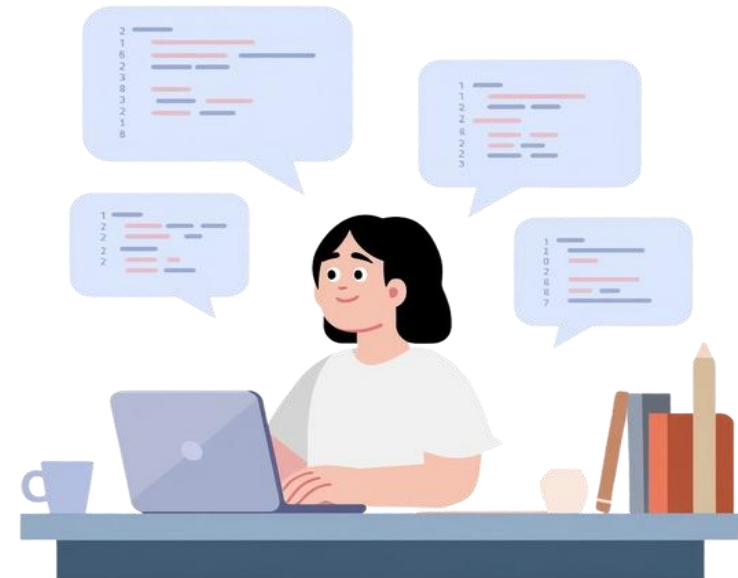
1. Fernandez et al., 2016, Harward, 2016; Riva et al., 2020; Zandvliet, Stanton, Dhaliwal, 2019; Barden & Caleb, 2019; Baik, et al., 2019.

2. Bucksch et al., 2015; Rupp et al., 2022; Mosleh et al., 2022; TK Health report, 2023; Rasheed et al., 2020; Whang & Zhang, 2023.

Introduction

Digital Environments in HE

- Increased digital learning practices in HE following the COVID-19 pandemic¹.
- Prominent area of interest in higher education².
- Prolonged exposure is linked to emotional burden, hyperconnectivity, time management, and social interaction³.



1. Czerniewicz et al., 2020; Otto et al., 2024

2. Kho et al., 2022

3. Aristovnik et al., 2020; Meng et al., 2024

Project Aim

HealthyMindEd aims to develop a high-performing digital education ecosystem by building capacity and critical understanding of the impact of digital education on social, mental and physical health among teachers and students alike.



Project Objectives

- Increasing knowledge and awareness of social, mental, and physical health in digital education – **Comprehensive research report**
- Equip HE educators and students with innovative teaching and learning approaches, best practices, and purposeful methods - **Policy recommendations and an interactive online platform and community of practice**

Results part -1

- Scoping Review
- A systematic search was conducted in Medline, Scopus, Web of Science, and the Education Resources Information Centre (ERIC) between 2021 and 2025.
- Eligibility criteria were defined using the “Population”, “Exposure”, and “Outcome” (PEO) approach (Munn et al., 2018). The target population included higher education students and teaching staff.
- Two reviewers independently performed study selection and data extraction. Data were synthesised narratively.

Results part -1



Eligibility criteria were defined using the “Population”, “Exposure”, and “Outcome” (PEO) approach (Munn et al., 2018). The target population included higher education students and teaching staff.

Table 2. PEO approach for inclusion of studies

| Parameter | Inclusion criteria | Exclusion criteria |
|------------|---|--|
| Population | Students or teaching staff in higher education across campus-based, blended, online, or distance learning settings. | Students or teaching staff from non-higher education contexts (e.g., primary or secondary schools, vocational training); mixed populations where data specific to higher education could not be disaggregated. |
| Exposure | Digital learning or digital teaching involving the use of technologies such as learning management systems (LMS), social media, virtual reality (VR), augmented reality (AR), video conference, digital devices, artificial intelligence (AI), and massive open online courses (MOOCs). | Learning or teaching settings without the integration of digital technologies; studies where the mode of delivery was exclusively face-to-face without digital components. |
| Outcome | Primary outcome: well-being assessed during the post-pandemic period (defined as the phase following the most restrictive phase of the COVID-19 pandemic, where educational experiences were no longer conditioned by pandemic-related limitations or adaptations), including psychological, emotional, or social dimensions, measured using standardised scales; and secondary outcomes: characteristics of digital learning environments, factors associated with well-being, and reported challenges or barriers impacting well-being. | Studies not focused on well-being; studies reporting outcomes unrelated to well-being; studies based on data from the pre-pandemic or pandemic period; or studies lacking clearly defined outcomes related to digital education. |

Results part -1

Table 1. Description of the characteristics of the 7 studies included in this scoping review.

| Author (year) | Country | Study objective | Study design | Sample size (% females) | Date of data collection |
|--------------------------|--------------|--|-----------------|--|--------------------------------|
| Basheti et al. (2022) | Jordan | To assess learning preferences and learning modality-related stress in university students | Cross sectional | 1241 university students (60.2%) | June -September 2022 |
| Giray et al. (2024) | Philippines | To examine digital device use, digital stress, and coping strategies in college students | Cross sectional | 384 college students (58.1%) | October to December 2022 |
| Ionescu et al. (2023) | Romania | To explore the relationship between satisfaction with online learning and mental health symptoms in undergraduate students | Cross sectional | 463 undergraduate students, with 399 valid responses (71.4%) | February to March 2022 |
| Ji et al. (2024) | China | To analyse perceived stress and its effects on online self-directed learning in college students | Cross sectional | 969 college students (56.5%) | July and August 2022 |
| Khan et al. (2024) | Saudi Arabia | To compare sleep and mental health outcomes in online and on-campus learning in undergraduate students | Cross sectional | 110 undergraduate medical students (0%) | November 2021 to March 2022 |
| Saleem et al. (2024) | Pakistan | To evaluate the impact of technostress on the quality of online learning and the moderating role of support in university students | Cross sectional | 435 university students with 392 valid responses (38.3%) | Not reported |
| Song et al. (2022) | China | To explore the association between digital classroom teaching and academic burnout in college students | Cross sectional | 206 college students (69.9%) | August 2022 |

Conclusions (part-1)

- Digital education in the post-pandemic period was associated with a moderate psychological and emotional burden among students, influenced by individual and environmental factors.
- These findings highlight the need for higher education institutions to implement targeted strategies that promote well-being in digital education settings.
- Further research is needed to explore the well-being challenges associated with various digital formats, as well as strategies for managing well-being in these contexts among both students and teaching staff.

Results part 2

Empirical research

- Mixed methods approach
- Qualtrics XM Survey and online and in-person focus groups
- Explore how digital education affects wellbeing

Online survey
Educators/Students



Online or in-person
Focus Groups





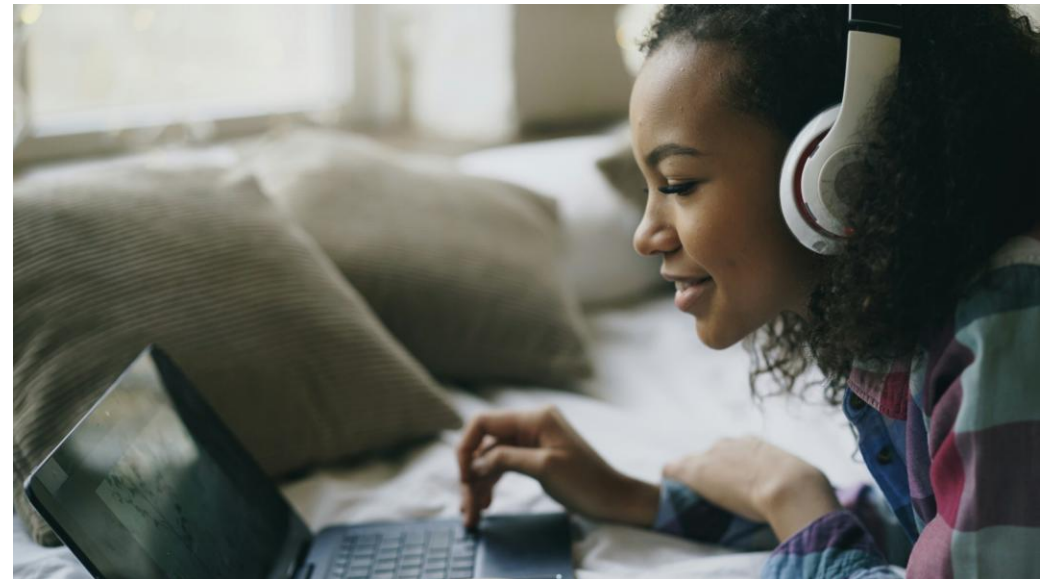
Results part 2

Educators Survey

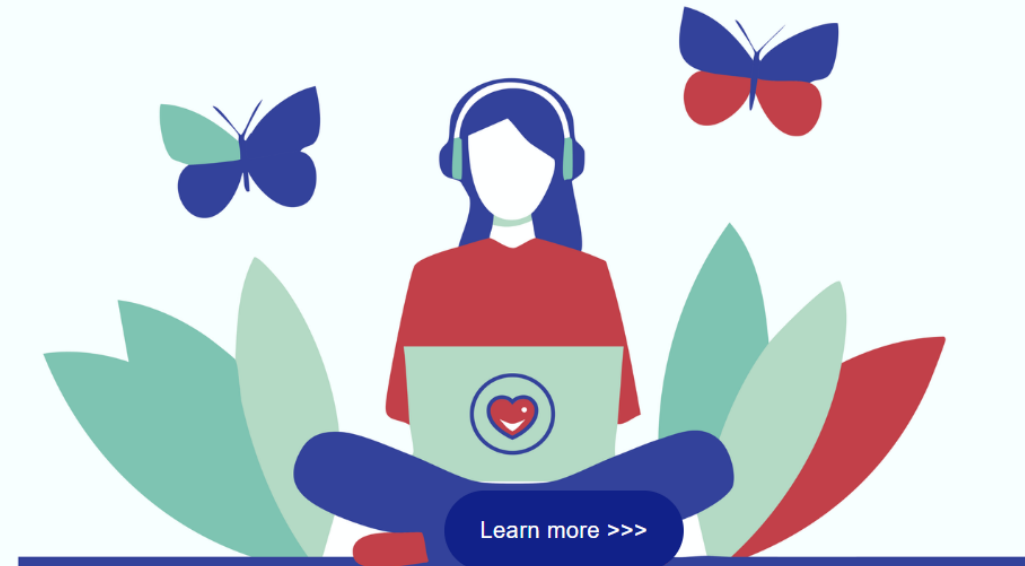
- Eligibility Criteria (Europe Institutions, Educator-Student, Use Digital Environments...)
- Demographics (Country, Disabilities, Employment Status, Discipline, etc.)
- Digital Teaching (experiences with digital teaching, type of digital teaching format used, type of online teaching, digital tools used, use of social media, etc)
- Satisfaction with Online Teaching (Online Instructor Satisfaction Measure, OISM), used to investigate satisfaction with asynchronous and synchronous teaching.
- Digital Teaching Challenges and support (Asynchronous and Synchronous courses)
- Wellbeing (GP-CORE)
- Loneliness
- Technology stress (Technostress)

Perspectives

1. Evaluate correlations between variables and wellbeing/loneliness/satisfaction, etc.
2. Deliver a comprehensive research report
3. Develop policy recommendations
4. Create an interactive online platform and community of practice



Healthy Digital Teaching and Learning in Higher Education



<https://www.healthyminded.eu/>