

Neuropedagogy in Higher Education

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Abstract

The convergence of neuroscience and pedagogy, known as neuroeducation, has sparked significant interest in the field of education since US President George Bush declared the 1990s to be 'The Decade of the Brain'. The purpose of this study is to look into worldwide higher education educators' and administrators' opinions, needs, and potential performance consequences for neuroeducation. The study goes into the complex link between neuroscience research and educational practices.

The education community is keen to acquire the neuroscience findings transfer into neuro-methodologies and neuro-didactics that promises to improve learning outcomes. There are several challenges that the education community must be mindful of in pursuing effective evidence-based practices. One is neuromyths, which are misrepresentations or misunderstandings about scientific findings. Second, having a common language that educators, parents, administrators, and policymakers can use to discuss neuroeducation in a meaningful way is necessary. Several keywords are used interchangeably such as; neuroeducation, neuropedagogy, educational neuroscience among others which can be confusing. Third, policy decisions must be made based on clear goals and grounded in evidence. Lots of resources are wasted on prescriptive methods that have no connection to any sound research. Fourth, There is evidence of strong interest in how the brain learns and processes information which means that access to evidence-based research findings must be accessible to help decrease misleading and misinformation. Fraggaki et al. 2022 However, the growing interest in the education–brain relationship does not match the proper use of research findings.

The research questions attempt to provide answers to the perspectives on neuroeducation and understand the interest and awareness of neuro-methodologies and neuro-didactics in the higher education community.

Objectives:

1. Perception Analysis: The goal is to identify and analyze worldwide perceptions of neuroeducation among higher education educators, with an emphasis on understanding how these perceptions influence teaching approaches.

2. Performance-Oriented Training Needs: To investigate the perceived training needs and wants of higher education instructors and administrators in terms of neuroeducation-based strategies for improving performance outcomes, such as engagement and commitment.

3. Neuromyth Impact: This study will look into the knowledge and prevalence of neuromyths among educators, as well as their possible impact on performance-oriented pedagogical practices.

Methodology:

This study takes a mixed-methods approach, including surveys with Likert scale questions disseminated between May and December 2023. The questionnaire covers five major performance-related areas: communication and emotions, concentration and engagement, didactic methodologies, creativity and critical thinking, and neuroscience and neuropedagogy.

Quantitative data will be analyzed using statistical tools, with an emphasis on potential relationships between neuroeducation perceptions and performance outcomes. The thematic investigation will be used for qualitative data, with an emphasis on aspects crucial to performance enhancement.

Future Research:

This finding sets the path for future research into performance-based neuroeducation. The following research may investigate the efficacy of neuroeducation-based training programs in improving particular performance markers. Longitudinal study can monitor the long-term influence of neuroeducation on instructors' performance-related practices, offering significant insights for ongoing development. Furthermore, investigating the influence of misinformation and disinformation on educators' decision-making processes, as well as the consequent impact on performance, is a viable path for future research.

This study adds to the academic discourse on neuroeducation while also providing practical insights to improve instructors' performance, benefiting both higher education institutions and students.

Keywords

Neuroeducation, Neuropedagogy, Neurodidactics

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Conflicts of interest

The authors have declared that no competing interests exist.

References

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