ABSTRACTS

Csányi, Tamás – Kälbli, Katalin – Kaj, Mónika – Svraka, Bernadett – Vig, Julianna: Neuroscience literacy of hungarian in-service and pre-service teachers – How common are neuromyths in education?

The use of neuroscience research findings has opened up new horizons in the field of education. Neuromyths are misconceptions based on neuroscience. Their prevalence is a problem in education worldwide, as they are particularly popular among teachers, which influences their bpedagogical practice.

The aim of our study is to present the neuroscientific literacy - including the prevalence of neuromyths - in a large sample of Hungarian in-service and preservice teachers. We also provide information on the situation in Hungary in relation to international research findings.

A total of 1556 participants (n=822 preservice teachers and n=734 in-service teachers) completed the higher education and public education versions of the Hungarian Neuroeducation Questionnaire (MANEK). In the analysis, we investigated how the validity of the 10 educational neuromyths and 13 neurofacts included in the questionnaire were perceived by the participants. In both cases, we analyzed the relative frequency score of responses for each question, from which we constructed two scores to characterize neuroscience literacy. Finally, using a literature review, we ranked the national scores internationally.

We found that the prevalence of educational neuromyths is at a worrying level in Hungary. The most common neuromyths follow the international trend, with delusions related to learning styles, hemispheric dominance and the effects of motor coordination exercises being the most popular. The neuromyth scores for preservice teachers were the second most unfavorable (56.9%) and for in-service teachers the fifth most unfavorable (59.7%) in the ranking of nine and 24 countries, respectively. However, in case of neurofacts the rate of correct answers and the overall scores were much more favorable, ranking fifth (70.9%) and third (77.1%) in case of preservice and in-service teachers, respectively. Our results are seen as a step forward in the development of comprehensive teacher education modules that promote the informed use of neuroscience findings in education, while at the same time developing a critical stance towards neuromyths.

Keywords: *neuromyths, misconceptions, neuroscience literacy, teachers, international comparison*

Havassy, András: The impact of the emergency remote education on attendance education – a case study of the II. Rákóczi Ferenc Secondary School in Budapest

The aim of the research presented in this study is to understand the path of digital transformation followed by our school.

The survey sought answers to the following questions: What impact has the digital work schedule had on our digital tool usage habits? What impact has working from home had on the choice of tools used in class? How have students' and teachers' digital working habits changed?

The Forms form used in the survey was completed by 235 students from 12 classes of the school. We asked students in higher grades who had been studying at our high school for at least one full academic year before the digital work system. The survey was carried out in December 2021 and January 2022. The results were statistically processed using SPSS software with cross tabulation analysis.

Results, conclusions. There were significant changes in the frequency of digital tool use in all the areas studied (communication /posts and messages/ knowledge transfer, assignment of tasks, practice, assessment and feedback), particularly in communication. According to the students, there are further opportunities to increase the use of digital tools, especially in the areas of practice and assessment/feedback. This is seen as a consequence of working at home. There has also been a significant change in the use of the digital classroom: the exclusive use of Facebook has disappeared, the percentage of teachers not using the digital classroom has been reduced to a minimum (practically zero) and teachers who previously did not use the digital classroom have all become Teams users. The proportion of teachers requesting smartphone use in the classroom has also increased significantly. The increase in classroom phone use is not necessarily directly related to working from home, but the request for phone use may indicate a change in teachers' attitudes. Although we do not know how much change would have occurred without the digital timetable introduced to cope with the COVID pandemic, the pace of change is significantly faster than the steady but slow change we experienced in previous years.

Keywords: *education, digital transformation, digital pedagogy*