6th International Congress on Scientific Research August 18-20. 2023, Ankara by IKSAD Institute

**Experiments in artificial intelligence-based educational methodology (case study presentations)**

Dániel Váradi (<https://orcid.org/0000-0001-9610-8566>)

Dr. László Pitlik (<https://orcid.org/0000-0001-5819-0319>),

László Pitlik (Jr.) (<https://orcid.org/0000-0002-8058-9577>)

e-Mails: danielvaradi140@gmail.com, pitlik@my-x.hu, ptlklszl@my-x.hu

Kodolányi János University and MY-X research team Hungary

*Keywords: chatGPT, solver, anti-discriminatory performance evaluation, creation-driven education, context-free/general-problem-solving, artificial intelligence*

**Abstract**

In recent years, the inter-institutional MY-X research group has operated most actively within the framework of the KJU (Kodolanyi Janos University, Hungary) on the field of educational methodology. In the presentation, principles and good practices will be demonstrated which can be used (in addition to classic primary/secondary school talent management, company, and university education) for individualized, competence-oriented teaching step-by-step. How is it possible:

* to distinguish between the consistency of knowledge levels that appear to be the same with naive scoring systems by involving artificial intelligence in the performance evaluation, i.e., who managed to realize more "guessed" points in an exam than others?
* to successfully integrate (provably doomed to fail) thesis writing chatGPT services into a creative process that can significantly surpass chatGPT?
* to integrate artificial intelligence-based multilingualism and/or avatar-based educational solutions into the grade/score creation processes?
* to support any subjects/topics with the Solver-based way of thinking?
* to support arbitrary subjects/topics by including data visualization supports that provide logging of user behaviour patterns in detail?

Some of the experiments already started before the COVID period. Even then, e-learning-based education dominated the education combining several subjects at the same time in the form of a single complex grade-giving task. The most active persons among the participants managed to appear at international conferences in 1-2 semesters, or spontaneously created group work fields in which a single group task resulted in half a dozen theses. The experiments are continuing in Germany from May with ERASMUS support. The outlined conceptual elements were not only able to complement the classical forms of talent management, but (at the cost of significant "time sacrifices") they also led to success in cases interpreted more like catch-up according to the canon (e.g., dyslexia). Of course, like perhaps no other method, this approach (following the Knuth principle) is also not suitable for all personality types of trainees - not even at the cost of significant sacrifices of the instructor's time: (where the KNUTH-principle defines a hard red line for the development of robot-teachers: knowledge/science is what can be transcribed into source code, all other human activity is art).