

Abstracts

Studies

Ágnes Bálint

From Games to Structures. In the traces of Zoltan Dienes' ideas

Zoltan Dienes the Hungarian origin mathematician and psychologist aimed at the renewal of mathematics teaching. He argued that teachers should promote the development of authentic mathematical thinking instead of teaching mathematical knowledge. The aim of teaching mathematics is the mental development of mathematical structures. For this purpose Dienes introduced games for children to gain mathematically relevant experiences. Through the accumulation of these experiences, argued Dienes, learners get to understand and represent the abstract mathematical structures. In the course of structure creation he emphasized the role of multiple embodiment of the abstract relations. In my paper I follow Dienes in analyzing the process how the structures develop as well as reveal the further psychological highlights in the background that Dienes failed to reflect on. I think that the comprehension of mental structure creation leads us to better understanding of insight.

Key words: Zoltan Dienes, mathematics teaching, structure, insight

Julianna Mrázik

Pursuit Of Quality in Institutional Education – About Some Elements of Teacher's Profile in ISE-Based Developments

The Inclusive System of Education – latter as ISE – is a pedagogical framework aim of which is to equalize the differences between chances of the disadvantaged children in school. The essay focuses on both explicit and implicit profile of the pedagogue and teacher-ethos of the ISE and ISE-based developments, on the fundament of special literature and by critical analyses of the guides. The study has examined the reflection of the contemporary trends of the standardization of pedagogues' competences as well as if the role of the teacher does exist in forefront of the ISE. The aim of the study was to present and characterizing the revealed teacher profile; to reveal the possible deficits and to estimate the probable ways of development of the foci. While reviewing the sources, it becomes apparent that the success of the program strongly depends on the role of the teacher and his/her role is crucial in such processes. It has also been revealed that teachers are less addressed in the question of importance and it is questionable whether the teachers can receive a support while meeting the expectations raised by the program.

Keywords: ISE, teacher's profile, ethos of education, promoting quality in institutional education

Gergő Vida

Similarities and differences in the categorization of disabilities and learning disorders in Europe

Hungarian Law LXXIX of year 1993 about public education is, in many ways, considered to be up to date, however, it has defined the interpretability and compatibility of the Hungarian system for many years within the OECD, despite opening a new era, since the categories regarding to learning disorders described in the law mentioned above have been difficult to be adapted outside our homeland. Based on data from 2002, 2-2.5% of children in the European Union have been considered as disabled, however, the data from Hungary showed that this rate was 5,3% here, which is a significant difference. The PISA surveys and the domestic experience have not verified this hypothesis, so finding the factors affecting these results to such an instinct is reasonable. It is, however, even more important that the factors listed above have fundamentally determined the domestic evolution of special education approach, and, as a result, the professional protocol. This does not only lead to a different range of interpretation of the word 'disabled', but its fundamental effects can still be felt in the structure of the system. An example might be the procedure according to which a child, a student enters the special education care system. Determining or sequencing the diagnosis and provided care progresses in logic opposing that in particular OECD countries. We can conclude that not compatibility is the biggest issue, but the many questions, answering which is not necessarily the purpose, however, it might induce an interesting reasoning. The domestic system is not necessarily bad; however, the professional and causal backgrounds of the differences might need an explanation.

Keywords: OECD, PISA, disabled, SNI, diagnosis

Kristóf Fenyvesi

Connections between STEM and the Arts: Bridges Organization, the World Largest Mathematics and Arts Community

Towards the 18th annual Bridges conference, the Bridges Organization has been regularly featured in the leading scientific journals and daily papers of the English-speaking world. The Bridges community has been introduced in several prominent forums from the Scientific American to the Guardian. The organization is greatly appreciated in Hungary as well, as an outcome of the Bridges 2010 and its number of satellite events hosted by Pécs city in the framework of the European Capital of Culture program. The author of this article has been a regular participant at Bridges conferences since 2007. In 2010 he was the local coordinator of the Pécs event, and also from the same year he has been serving as the Director of Community Events with the Bridges Organization. At the University of Jyväskylä (Finland) he will be the local organizer of the Bridges Conference for the second time in 2016. This article summarizes his knowledge on the Bridges Organization's history, scientific background and main results in the international context of mathematics and the arts.

Keywords: Bridges Organization, STEM, STEAM, mathematics, arts, education, interdisciplinarity, transdisciplinarity, aesthetics

Adermann Gizella Cserné

Learning of teachers - formal and informal learning in TÁMOP projects for development of teacher training programs

In our study we present two consecutive TÁMOP projects aimed to develop teacher training programs and teacher training networks from the aspect of learning processes that took place during these projects – what kind of learning processes has been generated among the implementers and the target group members between 2010 and 2015. We focus on the example of the college of Dunaiújváros, also referring to the experience gained in collaboration with the Pannon University, and to the information published through the national meetings of the project. Our study underlines that a wide variety of learning took place in these examples of the projects.

Keywords: project, teacher training, formal learning, informal learning

Julianna Rayman

The strategy of Inclusive University: a research and development work for Inclusive Excellence

The „Inclusive University” strategic proposal was established as an initiative of quality development at the University of Pécs (PTE) in the autumn of 2015. The proposal was aiming to improve the academic excellence of PTE with creating a diverse, inclusive and equity educational environment. The present article summarizes the strategic proposal’s main goals, the concept – Inclusive Excellence – behind it, and the (working) process of creating it. By having a sight into the way of formulating the proposal we can understand the it’s methodology, and meanwhile we can have the chance to get to know the theoretical literature and the national adaptational opportunity of a modern approach.

Keywords: improvement of academic excellence, inclusive excellence, diversity, equity