

SPECIAL ISSUE

In this special issue, we will include papers presented at the EWCOME 2018 – the 5th East West Conference on Mathematics Education. EWCOME 2018 had 50 participants, mainly from Poland, but also from the USA, the Czech Republic, Ukraine, Belorussia, Russia and China.

EWCOME sessions are place that allows interdisciplinary teams to ask practical questions, then searching for answers and convert them into action. The special interest of this group is the use of computer techniques such as the free software GeoGebra for learning and teaching mathematics. Thanks to the open formula of the conference, the questions and discussion are held from people from various fields. The main goal of the EWCOME conference series is to combine various fields of knowledge: psychology, didactics, pedagogy and practical experience so that scientists and practitioners have the opportunity to share their knowledge and experiences as well as the include practitioners in traditional academic discussions. The conference is also an opportunity to ask questions, pose problems, and to joint attempts to answer these questions and solve the challenges facing modern mathematics education.

EWCOME conferences were created on the initiative of scientists: psychologists, pedagogues, didactics, and practitioners from the fields of mathematics education. Social scientists from the University of Social Sciences and Humanities at SWPS are involved in the preparation of the conference, in particular from the Psychology Department of the SWPS

University, Academic Center for Educational and Social Innovation AKCES and the AKCES Foundation. Conferences have traditionally been held at the headquarters of the SWPS Human Resource and Social University and benefit from the experience and knowledge of social scientists, in particular psychologists. During the sessions, presentations and discussions, issues related to the use of modern psychological knowledge to improve the quality of mathematical education are discussed. In this thematic issue, we present the following topics: Sylwia Kania presented the work “Some difficulties in the relations between the teacher and the student in the context of solving text problems”. The author focused on the methods of solving selected end of high school exam tasks, presented the path that the teacher should go with her students during the analysis of the problem under consideration. She also drew attention to the difficulties that arise in this way, to misunderstandings, which constitute a significant obstacle to communication in the lesson, as well as in the general teacher-student relationship. The author assumes that correct task analysis, understanding the problem, considering the solution, performing the planned activities and finally looking at the task in a holistic way, are the foundation of reasoning, which leads to an abstract understanding of the content under consideration. From the work it was concluded that a teacher who can not correctly analyze a mathematical task in the classroom, will not be able to develop the creative attitude of his students, necessary on the path of mathematical cognition.

In the next publication, “Asking questions as a method conducive to the mathematical activity of students” Daniel Wójcik deals with a very important subject matter of asking questions in mathematics classes. The author proves that the questions do not have to be used only to check the student’s state of knowledge, obtain one, expected answer or only play the role of a one-sided form of communication. It presents an attempt to use questions asked by the teacher to build a method that would allow the student to develop their skills and deepen their knowledge. He states that the method of asking questions seems to be conducive to increasing the mathematical activity of students. In his work he presents examples known from the literature and based on his experience.

Then Petra Surynková presented the article “Spatial geometry in secondary education: Learning spatial skills and recognizing students’ problems in the field of spatial geome-

try”. The author presents experiences gained while conducting geometry courses at the Charles University in the Czech Republic. She describes that students starting university education point to serious deficiencies in spatial skills. She identified some of the students’ problems in the area of spatial geometry and presented several concepts of exercises and classes intended for both high school and college students, which could contribute to reducing these deficiencies.

We hope that the articles collected in this issue will interest not only theoreticians but also practitioners – teachers and will inspire you to search for the best teaching methods. We would like to thank all authors for sending their articles. Thanks are also given to the reviewers, thanks to which the quality of articles published in this special issue has been improved.

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