

ABSTRACT

The thesis is aimed on the mathematical knowledge and skills development in leisure time activities. The theoretical part of the thesis is dedicated to leisure time, pedagogy of leisure time, out-of-school education – its content, functions and requirements for realization of out-of-school education. This part of the thesis is also dedicated to the motivation and its use in leisure time activities and development of mathematical knowledge in leisure activities. Based on this information and on my own experience, I worked out and introduced the principles for preparing leisure time activities developing mathematical knowledge and skills. Following is a compilation of leisure time activities that develop knowledge and skills in geometry, arithmetic, algebra, logical thinking, or geometric imagination. The compilation contains activities suitable for relaxing, recreational and hobby activities.

The practical part includes a case study of the Textile Applications activity, which deals with consolidation and development of knowledge in axial symmetry within the leisure time sewing ring. The case study verified if participants in this activity developed knowledge in axial symmetry, if the activity respects the requirements for out-of-school education and if it improves belief in the applicability of mathematical knowledge. The case study showed that progress in knowledge of axial symmetry after the activity succeeded in most girls participating in the activity. In the same time activity met requirements for non-teaching education.

KEYWORDS

leisure time, pedagogy of leisure time, out-of-school education, mathematics, axial symmetry