

ABSTRACT

Master's thesis Development of pre-mathematical literacy through fairy-tale worksheets focuses on the connection between pre-mathematical and pre-reading literacy through fairy-tale-themed worksheets. The thesis consists of three main parts: 1) the Theoretical part introduces the basis for the practical part, including developmental and cognitive psychology as well as pre-mathematical literacy and reading preliteracy; 2) the methodological part presents the aim, research questions and used methodology for research realisation including conditions for it. 3) Practical part consists of used scenarios, a description of the research process and an analysis of extracted data.

The main aim of this thesis was to find out if the worksheets designed with didactical advice and set into a didactical structure, were suitable for children aged 5 to 7. For didactical structures scenarios were created. The author created seven worksheets, which contextually relate to fairytales for kindergarten children: Red Riding Hood, Hansel & Gretel, The Twelve Months, Goldilocks and the Three Bears, The Wolf and The Seven Little Goats. Activities linked with worksheets mainly prepare children for the solution of word problems in grade 1 of elementary school, with emphasis on graphical record of information and transformation of graphical code to verbal code. The didactical structure is preparation for classwork at elementary schools.

The research is based on Participant observation, supported by video recordings of children solving the worksheets, including final interviews about them. Observed phenomenon tabulation with preset criteria was used for evaluation of propriety of the worksheets and used didactical structure. The use of worksheets, which develop pre-mathematical and readers' preliteracy together, is uncommon in Czech kindergartens. The thesis offers suggestions for practice in kindergartens.