ABSTRACT

This thesis deals with the Czech game called Abaku, which was created as a variation of Scrabble using numerals instead of letters. The aim of this thesis is to find out what numerical and structural skills the pupils of elementary school, who are participating in the final of Abaku League, have, and what is their relation to mathematics. The used methods are the analysis of the games played on the qualifying rounds of Abaku League, a questionnaire for the finalists of the league and an interview with several of them. Author has 165,640 records of played games for analysis, 1,157 of that were analyzed. The questionnaire was completed by 38 players and seven of them participated in the interview. The questionnaire consists of questions about the popularity of mathematics, the frequency and duration of playing Abaku, and ten tasks to identify the numerical and structural skills of the players. Above all, the research showed that the surveyed Abaku players are well-versed in the area, know how to work with powers, and show curiosity for other mathematical disciplines. The theoretical part of thesis consists of a research of available literature concerning Abaku, introduction of the game including rules and development stages of the player, comparison of Abaku with games of similar type and relationship of Abaku to the curriculum. The are answers to the research questions in the final part of the thesis, research limitations and recommendations for further research.

KEYWORDS

learning strategies, numerical skill, didactic game, Abaku, number, game, mathematics