

ABSTRACT

The thesis processes data from the research of the company H-edu, which developed a course to help students understand the issue of fractions in the difficult times of Covid-19. Using a large number of materials, an interactive environment, videos and professional guidance, the company helped those interested in understanding the basic principles for perceiving and counting fractions. The thesis compares the results before entering the course and after its completion, which presents the details associated with the course and allows for an evaluation of the course design. The data also helps to identify where students make the most mistakes. Furthermore the thesis contains information on how to identify more demanding tasks or why students might need more time during calculations. At the same time, it explains the importance of gradation of tasks associated with higher success of respondents. The thesis also deals with the structure of questions that affect the representation of incorrect answers. For the most frequently recorded incorrect answers the thesis explains its cause and the procedure by which the respondents came to the wrong result. Recurring errors highlight the need for thorough explanation and practice of the substance. Moreover, the thesis contains a detailed analysis of the introduction of fractions in the two most frequently used textbooks, which is compared with the chapters of textbooks applying the method of Hejný.

KEYWORDS

fractions, analysis of tests and test tasks, error rate, structure of tasks, gradation of tasks