

INVESTIGATION OF EIGHT GRADE STUDENTS' PROBLEM POSING ABILITIES FOR INTERPRETATION OF THE REMAINDER IN DIVISION PROBLEMS

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Abstract

The purpose of this study is to investigate the problem posing abilities of secondary school 8th grade students by using the operation of "division with remainder" and to reveal their mathematical thinking during problem posing process. This study was carried out using a qualitative research method and applied by using the clinical interview model by providing the students with the necessary materials. The study was conducted with 10 students (5 girls, 5 boys) attending the 8th grade of a private secondary school where the researcher was also working as a teacher. A problem posing activity with 4 tasks which requires the "interpretation of the remainder at division operation" was prepared by expert opinion to be at the proper hardship level suitable for the knowledge and ability level of 8th graders. In the activity, the four problem posing tasks regarding division operations which requires the four different solution strategies of "indivisible with remainder, divisible with remainder, remainder as the answer, and quotient rearranged with partial increments" were directed to the students. The students wrote the problems they tried to pose for each task and handed their works in the researcher. Besides investigating the written problem posing works of students, the behaviors of students during the study were also observed. The work was recorded with a video camera, then the video observations were written down. When the data were examined, it was seen that the students had the most difficulty in the problem posing task requiring the strategy of "quotient rearranged with partial increments". Also, it was found that the students had in adequacies in using mathematical language. Consequently, were commend that problem posing activities and mathematics language using practices be emphasized in secondary school mathematics lessons.

Keywords: Division operation, interpretation of the remainder, problem posing.