

ABSTRAK

Gisella Erni Kurniadewi. 151414012. 2020. Analisis Kesalahan Peserta Didik dan Upaya Remediasi dalam Menyelesaikan Soal Operasi Perkalian dan Pembagian Bilangan Pecahan Kelas VII A SMP Pangudi Luhur Sedayu Tahun Ajaran 2019/2020. Program Studi Pendidikan Matematika, Jurusan Pendidikan Matematika dan Ilmu Pengetahuan Alam, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Sanata Dharma.

Tujuan pada penelitian ini adalah; 1) Mengetahui jenis kesalahan yang dilakukan oleh peserta didik kelas VII SMP Pangudi Luhur Sedayu dalam menyelesaikan soal operasi perkalian dan pembagian bilangan pecahan; 2) Menemukan faktor yang menyebabkan peserta didik kelas VII SMP Pangudi Luhur Sedayu melakukan kesalahan dalam menyelesaikan soal operasi perkalian dan pembagian bilangan pecahan; 3) Mendeskripsikan rancangan dan hasil remediasi melalui pendekatan *discovery learning* dan kontekstual yang dilakukan guru dalam mengatasi kesalahan yang dilakukan peserta didik dalam menyelesaikan soal operasi perkalian dan pembagian bilangan pecahan.

Subjek penelitian ini adalah kelas VII A SMP Pangudi Luhur sedayu tahun ajaran 2019/2020 terdiri dari 34 peserta didik. Jenis penelitian menggunakan penelitian deskriptif kualitatif. Metode pengumpulan data yang digunakan adalah observasi, tes tertulis (*pre test* dan *post test*), dan wawancara. Analisis data dalam peneliti data adalah teknik analisis data kualitatif. Penelitian ini menggunakan teori analisis kesalahan menurut teori Newman. Program remediasi yang dirancang oleh peneliti untuk mengatasi kesalahan yang dilakukan oleh peserta didik adalah menggunakan metode *Discovery Learning*.

Hasil penelitian menunjukkan bahwa kesalahan yang dilakukan peserta didik pada soal *pre test* adalah kesalahan membaca, kesalahan memahami, kesalahan transformasi, kesalahan keterampilan proses, dan kesalahan penulisan jawaban. Hasil penelitian menunjukkan bahwa kesalahan yang dilakukan peserta didik pada soal *post test* adalah kesalahan transformasi, kesalahan keterampilan proses, dan kesalahan penulisan jawaban. Hasil perbandingan soal *pre test* dan *post test* kesalahan yang masih dilakukan peserta didik adalah kesalahan transformasi, kesalahan keterampilan proses, dan kesalahan penulisan jawaban. Faktor penyebab peserta didik melakukan kesalahan tidak teliti dalam memahami soal, tidak teliti dalam menghitung operasi perkalian bilangan pecahan, tidak teliti dalam mengoperasikan pembagian bilangan pecahan, kesalahan persepsi dalam mentransformasikan soal perkalian bilangan pecahan, dan kurangnya pemahaman terkait menyelesaikan soal operasi perkalian dan pembagian bilangan pecahan. Remediasi dirancang dengan membahas soal *pre test* dan mengajarkan materi kembali materi operasi perkalian dan pembagian bilangan pecahan.

Kata kunci: analisis kesalahan, program remediasi, analisis kesalahan Newman

ABSTRACT

Gisella Erni Kurniadewi. 151414012. 2020. THE ANALYSIS OF STUDENTS' ERRORS AND THE REMEDIATION EFFORTS IN SOLVING PROBLEMS OF MULTIPLICATION AND DIVISION OF FRACTIONS FOR GRADE VII OF PANGUDI LUHUR SEDAYU JUNIOR HIGH SCHOOL IN THE 2019/2020 ACADEMIC YEAR. Mathematics Education Study Program, Mathematics and Science Education Department, Faculty of Teacher Training and Education Sanata Dharma University.

The purposes of this study were; 1) Knowing the types of errors made by students of class VII Pangudi Luhur Sedayu Middle School in solving multiplication and division of fraction numbers; 2) Finding factors that cause the errors made by the students of class VII Pangudi Luhur Sedayu Middle School in solving the problem of multiplication and division of fractions; 3) Describing the design and results of remediation through discovery learning and contextual approaches made by the teacher in overcoming mistakes made by students in solving the problem of multiplication operations and division of fractions.

The subjects of this research were students of class VII A of Pangudi Luhur Middle School in the 2019/2020 school year consisting of 34 students. This type of research was descriptive qualitative research. Data collection methods used were observation, written tests (pre-test and post-test), and interviews. Data analysis used qualitative data analysis technique. This study uses the theory of error analysis according to Newman's theory. The remediation program designed by the researcher to overcome the errors made by students used Discovery Learning method.

The results showed that the errors made by students in the pre-test questions were reading errors, comprehension errors, transformation errors, process errors, and encoding errors. The results showed that the mistakes made by students in the post-test questions were transformation errors, process errors, and encoding errors. The results of the comparison of pre-test and post-test showed that the errors that were still made by students in the post-test were transformation errors, process errors, and encoding errors. Factors causing students to make mistakes were being not careful in understanding the problem, not careful in calculating the fraction multiplication operations, not careful in operating the division of fraction, misperception in transforming the problem of multiplication of fraction, and lack of understanding related to solving the problem of multiplication and division of fraction. Remediation was conducted by discussing pre-test questions and teaching materials using the materials of multiplication operations and division of fractions.

Keywords: error analysis, remediation program, Newman's errors analysis