

A Deeper Understanding of Form 1 Students' Errors in Solving Fractions Problems in Mathematics

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Abstract

Purpose – The purpose of this action research was to identify students' errors in solving fraction number line and word problems. It also explored the effectiveness of Tik-Tok short videos in improving students' fraction understanding.

Methods – The sample for this research consisted of 48 students from Form 1 at SMK SANZAC. In this study, a Check Point Test was utilised as a tool to identify students' errors in answering fraction number line and word problems. As a research intervention, short videos on Tik-Tok were created to help students improve their fraction knowledge. The bar modelling method was demonstrated in the Tik-Tok videos to help students in comprehending fraction word problems. To better understand students' perceptions and accessibility challenges when learning fractions at home, online feedback forms were used.

Findings – According to the findings of this research, students who struggled with number lines did so mainly due to confusion with whole number properties. Students who struggled with fraction word problems did so mostly because they cannot comprehend the fraction concepts involved.

Significance – It was found that students' fraction performance has improved after watching Tik-Tok short videos.

Keywords – Fraction number line, Fraction word problem, bar modelling, Tik-Tok short video, errors.