

ABSTRACT

Analysis of Safety Level in School Safety Zone (ZoSS) at SDN Ciater 2 Tangerang Selatan (Case Study: SDN Ciater 2 Tangerang Selatan)

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The effectiveness of the implementation of the School Safety Zone (ZoSS) at SDN Ciater 2 in South Tangerang City needs to be evaluated. Based on three main indicators, namely the completeness of road facilities, the behavior of pedestrians and escorts, and the speed of vehicles passing through the School Safety Zone (ZoSS) area. The School Safety Zone (ZoSS) facilities include traffic signs and road markings. Pedestrian and escort behavior was observed, while vehicle speed was measured using the 85th percentile method and Z-test statistics. The average instantaneous vehicle speed in the ZoSS area was found to be 29.37 km/h, indicating compliance with the speed limit of ≤ 30 km/h. From the data analysis, it was found that the completeness of ZoSS traffic signs only had 2 signs on-site out of 10 types specified in regulations, and road markings only had 4 markings on-site out of 6 types specified in regulations, with these markings already beginning to fade. Analysis of pedestrian behavior showed “safe” results throughout the survey hours ($Z_{\text{calculated}} \geq Z_{\text{table}} 1.645$). Although the $Z_{\text{calculated}}$ value was lower during school arrival hours, the results still met the criteria. The behavior of escorts also showed “safe” results throughout the survey hours ($Z_{\text{calculated}} \geq Z_{\text{table}} 1.645$). The conclusion is that the School Safety Zone (ZoSS) facilities related to signs and markings are not classified as “safe.” This is because the signs and markings do not comply with regulations. For the analysis of pedestrian, escort, and speed behavior, they are categorized as ‘safe’ and “safe.” This is because the results obtained meet the requirements and standards of the regulations.

Keywords: School Safety Zone, traffic safety, vehicle speed, pedestrian behavior, SDN Ciater 2.