# Pengaruh Kebisingan terhadap Konsentrasi Siswa Sekolah Dasar Negeri di Pinggir Perlintasan Kereta Api Kecamatan Tebet, Jakarta Selatan Tahun 2017 = Effects of Noise on Concentration on Elementary School Students Around Railways in Tebet, South Jakarta 2017.

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Abstrak

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Pesatnya perkembangan transportasi dan pembangunan prasarananya membuat masyarakat mudah mengakses sarana transportasi dan mempermudah mobilitas. Namun, perkembangan ini menimbulkan dampak negatif, salah satunya kebisingan. Pajanan terhadap bising dapat mengakibatkan dampak kesehatan terutama pada anak-anak, antara lain gangguan fungsi kognitif seperti konsentrasi. Usia sekolah dasar merupakan kelompok yang rentan mengalami gangguan konsentrasi akibat kebisingan dan mengakibatkan terganggunya fungsi kognitif yang lain. Beberapa sekolah dasar di Jakarta terletak di pinggir perlintasan kereta api yag sibuk, dimana siswanya berisiko terpajan kebisingan selama berada di sekolah. Penelitian ini menganalisis hubungan antara kebisingan dengan konsentrasi siswa di sekolah dasar negeri di pinggir perlintasan kereta api di Kecamatan Tebet. Penelitian ini merupakan penelitian cross-sectional dengan 68 responden yaitu siswa kelas 4 dan 5. Penelitian ini mengukur kebisingan di kelas, tes konsentrasi dengan digit span, dan variabel lainnya yang mempengaruhi konsentrasi anak. Hasil pengukuran menunjukkan kebisingan ekuivalen adalah 66,84 dBA, melebihi baku mutu KepMen LH No.48/1996 yaitu 55 dBA untuk wilayah sekolah. Hasil analisis bivariat dan multivariat menunjukkan tidak adanya hubungan yang signifikan antara kebisingan dengan konsentrasi siswa (p-value=0,78 dan p-value=0,716), namun didapatkan OR 3,285. Meskipun kebisingan dengan konsentrasi siswa tidak berhubungan signifikan, namun pajanan kebisingan >55 dBA dialami siswa setiap hari di sekolah, dimana mereka menjadi kelompok rentan mengalami gangguan konsentrasi akibat kebisingan. Rekomendasi untuk mengurangi dampak kebisingan di sekolah adalah dengan rekayasa lingkungan dan untuk studi selanjutnya agar mengukur kebisingan di wilayah tempat tinggal siswa serta mengontrol variabel gangguan psikiatri dan IQ.
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ABSTRACT<br>
Nowdays, transportation and its infrastructure has developed rapidly in order to make people easy to access and to mobilize. However, these developments have a negative impact, such as noise. Exposure to noise might result in health effects, especially in children, including cognitive function disorders such as lowering the concentration. Primary school age is a susceptible group for concentration disorder which may result disruption of other cognitive functions. Several primary schools in

Jakarta are located near the busiest railway crossing, where students are exposed to noise during school time. This study analyzes the association between noise and concentration of students in public elementary schools which located near the edge of the railway crossing in Tebet. This study is a cross-sectional study with 68 respondents from 4th and 5th graders. This study measured noise in the classroom, assessing concentration with digit span instrument, and other variables which affect the concentration. Measurement result shows equivalent noise is 66.84 dBA, exceeding the standard of KepMen LH No.48 / 1996 which is 55 dBA for school. Results of bivariate and multivariate analysis showed no significant correlation between noise with student concentration (p-value = 0,78 and p-value = 0,716), however it showed odds ratio 3,285. Although noise and concentration was not significantly correlated, students were experiencing noise exposure> 55 dBA at school, which may lead the students to became susceptible to disturbance due to noise exposure. Recommendations for reducing noise impacts in schools are by doing environmental engineering and for further studies it is recommended to measure noise in the student's residence area and control the variables of psychiatric disturbances and IQ.