

Peran fasad terhadap pengendalian kebisingan ruang dalam rumah kos:  
studi kasus rumah kos pada kawasan Jalan Haji Amat Kukusan Depok  
= The role of facades in controlling room noise in boarding houses: case  
study boarding houses in the Jalan Haji Amat Kukusan Depok area

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Abstrak

Rumah kos mahasiswa yang terletak di kawasan padat penduduk berpotensi terdampak kebisingan lingkungan hingga melampaui standar kebisingan. Hal ini dapat berpengaruh negatif pada kesehatan fisik dan mental mahasiswa di dalam kamar kos. Fasad sebagai lapisan pelindung paling luar pada bangunan perlu ditinjau perannya dalam mengurangi kebisingan. Skripsi ini bertujuan untuk mengetahui gangguan kebisingan lingkungan dan elemen fasad apa yang paling berperan dalam pengendalian kebisingan yang memasuki kamar kos. Kebisingan dapat merambat melalui medium udara lalu mengalami pemantulan, penyerapan, dan penerusan pada saat menyentuh bidang padat seperti fasad rumah kos. Kemampuan fasad dalam mengurangi transmisi kebisingan dapat dipengaruhi oleh elemen fasad seperti jenis material, bukaan, dan bentuk geometri selubung bangunan. Penulisan ini menganalisis elemen fasad rumah kos pada kawasan padat penduduk dan ramai lalu lintas di Jalan Haji Amat Kukusan, Depok sebagai objek studi. Analisis dilakukan berdasarkan pengukuran tingkat kebisingan lingkungan, perhitungan nilai reduksi kebisingan, dan perhitungan persentase elemen fasad rumah kos. Hasil analisis studi kasus menunjukkan bahwa fasad rumah kos terbukti dapat mengurangi kebisingan secara signifikan namun beberapa sampel rumah kos belum dapat mereduksi kebisingan lingkungan hingga mencapai batas standar kebisingan. Elemen yang paling berperan terhadap kemampuan fasad dalam mengurangi kebisingan adalah elemen bukaan.

.....Student boarding houses which are located in densely populated areas have the potential to be affected by environmental noise to the point of exceeding noise standards. This can negatively affect the physical and mental health of students in boarding rooms. The facade as the outermost protective layer in a building needs to be reviewed for its role in reducing noise. This thesis aims to find out which environmental noise disturbances and facade elements play the most role in controlling noise that enters the boarding house. Noise can travel through the air medium and then experience reflection, absorption, and transmission when it hits a solid surface, such as the facade of a boarding house. The facade's ability to reduce noise transmission can be affected by facade elements such as the type of material, openings, and the overall geometry of the building. This writing analyzes the elements of the facade of a boarding house in a densely populated and busy traffic area on Jalan Haji Amat Kukusan, Depok as an object of study. The analysis was carried out based on measuring environmental noise levels, calculating noise reduction values, and calculating the percentage of the student boarding houses' elements. The results of the case study analysis show that the facade of the boarding house is proven to be able to reduce noise significantly, but several boarding house samples have not been able to reduce environmental noise down to the noise standard limit. The elements that play the most role to the facade's ability to reduce noise are the building openings.