Using School Measurements to Rate the Quality of the Environment

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Problems in the physics instruction are often tied to the lack of interest among students and the feeling that the school acquired knowledge of physics is not useful in everyday life and will not be needed in real life.

In this article we want to present inquiry based student projects where the school physics was related to some current issues, which frequently occur in everyday life. Examples are projects related to harmful effect of the environment on humans and human influence on the environment.

Using school instruments students measured and estimated noise (in the city, by freeways, in the countryside), the light pollution in the city, and ion radiation, which was one of this year’s current themes. Using the school knowledge of physics they performed simple calculations and compared them with measured values and with values from other environments. They used articles and internet resources to find pollution standards for different types of pollution of the environment, and estimated the quality of the environment where they had performed their measurements. We present the practical work of the participating students, their entering and exit knowledge, and a questionnaire used to measure the motivational effect of the project.

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