

The Impact of School Environment on Energy Conservation  
Consciousness of Elementary School Students:  
A Case Study of Kohoku and Nango Elementary School  
(小学生の省エネ意識に与える学校環境の影響  
—幌北小学校と南郷小学校を例として)

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Energy saving is one of the most important solutions for the global environmental issues. After the nuclear accident in Japan, Japanese government started to shift its energy source to liquefied natural gas, which is much safer than nuclear but increases more emission of greenhouse gases. In response to this situation, MEXT has currently been promoting Eco-School project, which installs new school facilities (e.g. solar panel and sensor-regulated light) to reduce the environmental burden and simultaneously to utilize the facilities for environment education. Previous research indicated that the consciousness in environments of students in Eco-School is higher than that in non Eco-School. However, it is doubtful whether or not those school facilities themselves contribute to the education of students without verifying the effects by other factors such as the differences of gender, grade, curriculum, local community activity and media. This study aimed to examine the effect of school facilities on energy conservation consciousness by comparing students' consciousness of two schools in Sapporo (Nango elementary school as Eco-School, and Kohoku elementary school as non Eco-School) and by verifying the relations with other factors.

As a result, it was found that the consciousness of students in two schools were different. By analyzing some factors, the data showed that the consciousness of students who was influenced by school facilities was higher than other students. Therefore, students of Nango elementary school more actively take actions for energy saving. The family education also influences children's energy conservation behavior. On the other hand, the factors of gender, grade, curriculum, local community activity and media did not indicate any significant impacts.

This study concludes that schools which utilized environmental friendly facilities surely have impacts on energy conservation consciousness of students, implying that Eco-School is expected to take a full advantage of energy conservation education.