

Educational Program Using Agricultural Sensor Data for Elementary School Students -Dr. Doroemon Project-

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Doroemon is most popular anime that children love all over the world. “Doro” means soil in Japanese. In this presentation, we introduce an educational program “Dr. Doroemon Project” which includes a thinking training through rice cultivation in the bucket by SRI method and data analysis for the 5-6th grade elementary school students in Tokyo, Japan during the 2011-2012.

Recently Japanese education system has focused on the “Integrated Studies.” The objective is growing up the following abilities of pupils through the multidisciplinary content, to think on their own, to make decisions, and to solve problems. Fortunately some schools adopted the cultivation but the ministry reported that some contents had not worked enough. Therefore we propose a new program which includes cultivation and enough opportunities to grow up these abilities.

In this program the students grew the rice by SRI method as compared to conventional method in the bucket. SRI stands for the System of Rice Intensification. According to the SRI Guideline it usually can produce 20-50% more yield with less seeds, water and fertilizers. Rice cultivation in the bucket is popular method in Japanese school because of space-saving. After the harvest they compared the data such as soil moisture and temperature using the worksheet. We evaluated their reactions.

As a result this program could provide more than half of them opportunities to think variously their own by utilizing their scientific knowledge and ideas. In addition some of them could compare and associate two kinds of data. It is suggested to be able to contribute to improve their ability of thinking their own.

In conclusion we would like to propose that “Dr. Doroemon Project” provided the pupils the opportunities to intensify their thinking ability and we show the possibility that to adopting cultivation and data analysis has certain positive impact on pupils.

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