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Analyses of interest and recognition of necessity on soil by elementary school pupils and junior high school students based on a questionnaire survey on soil in Japan

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Focusing on the number of the word “soil” in the field of science in the national guideline of Japan, it has been decreasing almost every ten years. Also, soil is taught inorganically and organic aspect is not treated in the field of science of the recent curriculum (Hirai et al. 2011). On the other hand, as urbanization is proceeding, people are gathering into city where the places with soil are scarce. Under such circumstances it would be important to analyze an interest and recognition of necessity on soil of elementary school pupils and junior high school students who are engaged with the present educational guideline. Therefore, soil education committee of Japanese Society of Soil Science and Plant Nutrition made a decision to conduct a questionnaire survey on soil in 2015. The questions in the questionnaire are; Q1. Are there places with soil around where you live, such as a rice field, forest, park or garden? Q2. Would you like to have places with soil around where you live? Q3. If you replied that you preferred to have a place with soil, what are your reasons? Q4. If you answered that you preferred not to have places with soil around in Q2, what are your reasons? Q5. In what situations have you touched soil? Q6. Circle all of the functions of soil that you think are useful in the lives of people, animals and plants which you are familiar with. Q7. Would you like to know more about soil? After the questionnaire survey, it was revealed that the questionnaire was answered by 5,396 pupils in the elementary schools and 3,472 students in the junior high schools. The results were partly summarized as follows: 1) The percentage of those who replied “I would like to have as many as possible” for Q2 decreased with increasing grade. The highest value was 48.3 % of 1st grader of elementary school, while the lowest was 27.5 % of 3rd grader of junior high school. The recognition of necessity on soil would be decreasing with increasing age. 2) The percentage of those who replied Q5 with “When working with flower pots” decreased with increasing grade. The highest value was 71.0 % of 1st grader of the elementary school, while the lowest was 23.1 % of 3rd grader of junior high school. Moreover, almost the same tendency was observed for “When taking a class at school”, that is, the highest value was 69.6 % of 1st grader of elementary school, while the lowest was 27.1 % of 3rd grader of junior high school. 3) The percentage of those who replied “I would like to know as much as possible about soil” for Q7 decreased with increasing age. The highest value was 66.1 % of 2nd grader of elementary school,

while the lowest value was 14.5 % of 3rd grader of junior high school.