

Earth Science Education from the view point of Industrial Society

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As a paradigm shift has brought complex and sophisticated outcomes of our industrial society, how do we capture the actual world?

Education for Sustainable Development (ESD) indicates that environmental respect nurtures not a private interest but a public mind which is related to economic independence. If people become independent economically, they could develop an understanding of the importance of respectful natural environment.

Vocational education, in a broad sense, is needed for promoting economic independence. Modern industrial society consists of the division of labor: Each of us plays an active role in supporting a social system.

Vocational education is being demanded more effort to acquire a particular field of study since it is a specialized education. The efforts would be paid off in future income and working satisfaction. Moreover, economic independence contributes to understand a wide range of research which is related to the other areas of interests.

In contrast, knowledge of science and basic theory is needed to foster intellectual curiosity. This is why scientific literacy in the Programme for International Student Assessment study is important. Here, scientific literacy is to describe scientific phenomena and draw conclusions from evidence.

A liberal arts education is scientific knowledge of various fields of study.

In Japan, T-person, on the one hand, implies a person who has only one specialized skill. -person, on the other hand, indicates a person who has two specialized skills.

The liberal arts education is one way to create an ideal type of human resources being sought.

It is difficult to tackle all the problems of the world if we only have a biased scientific knowledge. In this sense, natural science, as part of a general education, should be ranged from earth science/geography to biology, physics, and chemistry. Scientific literacy is inevitable to consider not only environmental issues but natural disasters and energy problems. It could be a devastating end if we lack scientific literacy.

We have expanded our fields of activities ranging from Earth's surface to the underground, to under the sea, and now to the outer space. Developers of ion engine and chemical engine inevitably need a wider interpretation of knowledge of the universe to anticipate and evaluate an uncertain future.

It is important to notice that our everyday life depends on uncertainty.

We hope that science literacy could guide the younger generation to consider "Future Earth", and make sure that it could entrust sustainability of the earth.

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