

'Ocean Science' class as a liberal arts education programme in the University of the Ryukyus

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Earth science education in the University of the Ryukyus in Okinawa Prefecture, located on an island surrounded by the ocean of the subtropical area, is focussed on marine geosciences, including ocean sciences, tropical and sub-tropical meteorology, island-arc geology and coral-reef geology. The faculty staffs are making the most of such a benefit of the geographical characteristics in the Okinawan region for the education of geosciences. Especially, the university has Faculty of Tourism Sciences and Industrial Management, which encourages talent for tourism industry for not only Okinawa but also global trade. Since the ocean is very important resources of the tourism in Okinawa, we are aiming at the right understanding of the sea through the geoscience education for these students. The class is also open to public and high-school students through the university extension programme. In this presentation, the author will report the practice of the 'ocean science' class mainly for students studying human and social sciences and for high-school students who are going to decide their future course of speciality.

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1. Introduction

Although the "water environmental education" which exceeded the generation from the children to the adult is important for the long period of time of good water environment, and continuous preservation, the role which a university plays in it is large.

Although continuously concerned with the water environmental education of primary, middle and high schools from such a viewpoint at the Hosei University Hydro-geography laboratory, the effect of cooperation and a future subject are described here based on the example of a Kashiwano elementary school and a Funabashi Shibayama high school.

2. Environmental Education of Cooperation with Kashiwano Elementary School

Although the Kashiwano elementary school is located in the northeast part of Chofu, Nogawa flowed through the inside of a school district, the environment of the "crab mountain" of rich nature was preserved, the rich living thing was full of the irrigation canal which flows out of springwater, and the paddy field which utilized the water also still spreads out.

Third grader about Nogawa's waterside and living thing, while it enters into a river, and various living things are extracted and observed or children breed them, an understanding about the living thing of the waterside is deepened.

Civic organization which utilized groundwater is also obtained, into the school, two small paddy field is made, and rice crop experience of glutinous rice and regular rice is advanced.

The groundwater pumped up from the well of the schoolyard was used for the water of a paddy field, children pumped up water every morning and it managed water by the person on duty also during the summer vacation.

The role was shared by a university's taking charge of the heavy labor which unearths a big stone, and an elementary school mainly taking charge of daily water, and an effort to deepen an understanding mutually was made.

3. Cooperation with the high school Funabashi Shibayama, Chiba Prefecture

In order that an "earth science club" might begin to have investigated the relation between springwater, groundwater, and a biotope and might deepen an understanding under these circumstances, cooperation concerning [having asked the Hosei University Hydro-geography laboratory for cooperation] environmental education at a cause started.

The well of the nine first year was dug in the swamp, the well was dug also near the main gates other than 2 more and a swamp in 2nd, and signs that groundwater flowed were explored, continuing and measuring the water level and water quality of a well.

In order to deepen the fundamental knowledge for understanding groundwater, the college student performed the trial lesson at the high school, and it cooperated that a high school student announced at the society at which the laboratory of a university is working etc.

An effort to deepen an understanding with water environment, such as performing the sampling of continuous water at a high school, and conducting advanced analysis of the water at the laboratory of a university, was made, and there was a big effect.

4. Conclusion

Although the effect that cooperation with any of an elementary school and a high school was also big was acquired, Also to the integrated study of an elementary school which a college student does not necessarily have a time margin and is given to him in a regular lesson focusing on during the morning, It has unreasonableness that a college student participates also in the activity of a high school performed by carrying out club activities after school repeatedly, and it was not able to make a cooperation opportunity to the extent that the plan was made at the beginning.

It is required to utilize during the mutual long leave etc. and to adjust the schedule through every year, and there is much room of a device.

Keywords: water environment, environmental education, university, synthetic study, regional study, cooperation

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Photo 1 Integrated learning experience in Nogawa and rice cultivation experience



Phot 2 Study on the water environment at biotope, practice teaching and conference presentation

A Report of the Questionnaire about the Knowledge and Consciousness of Undergraduate Students on Global Warming

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The global warming issue needs to tackle not only by transient social concern but by long-term view. Here, a result of questionnaire survey about the knowledge and consciousness to global warming for the purpose of the basic data creation of the educational materials on climate change and global warming countermeasures in countries or local governments is reported. Those surveyed are undergraduate students who take a lecture on the liberal arts, and survey items consist of knowledge and consciousness to the environmental problem. As consciousness to the countermeasures, we also investigated in terms of whether people should change their lifestyle or not. High environmental awareness was found out from the people's concern. There were responses in relation to the global warming countermeasure. For instance, they required the reduction of environmental impact coming from energy consumption. They also preferred the opinions that it should address even if it changes lifestyle. As an educational side, ambiguous knowledge about cause of global warming was seen. In order to overcome ambiguous knowledge and to take advantage of young people's high awareness on this issue, it is necessary for education of global warming to cooperate with countermeasures (such as applications of low-carbon energy techniques reducing carbon dioxide or uses of risk information on natural disasters posed by global climate change).

Keywords: global environmental issues, global warming, science education, questionnaire