

A Case Study of College Students' Extra-Curricular Activities: Focused on Summer-Camp Program for Meteorological Satellite

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Abstract. This study aims to explore the motivation and satisfaction for summer camp extra-curricular activity as a case study in order to propose the effective ways to improve college-based extra-curricular activities. Survey data were collected from 127 college students, who participated in the summer-camp operated from year 2011 to 2014. To analyze the data, frequency analysis, *t*-test, and ANOVA test were conducted. The results were as follows; First, 'to improve the capacity for the major' as one of the participation motives on extra-curricular activity of the participants was the highest one, and this was the same for male and other major college students than atmospheric sciences every year. Second, in terms of participation satisfaction, the participants appeared to be largely satisfied. Regardless of the year of activity participation, gender, and major, there were no significant differences on the participants' responses toward two questions "I participated actively in the lecture" and "I will recommend the Camp to other students". Third, in the case of operational satisfaction, the participants thought it quite satisfactory.

Keywords: Extra-curricular Activities, College Students, Meteorological Satellite Summer-camp Program

1 Introduction

Adding extra-curricular activities to the current university curriculum has become an alternative to overcome the limitations of contents, teaching-learning methods, time, and space. An extra-curricular activity is defined as a formal or informal teaching-learning activity beyond the regular curriculum or educational program.

Previous studies on extra-curricular activities mainly investigated their effectiveness and influence on learners' creative thinking, academic achievements,

social skills, drop-out rates, and delinquency throughout various fields such as P.E, science, mathematics, legal education, and after-school hands-on activities, etc. [1, 2, 3, 4]. There have also been studies comparing extra-curricular activities in Korea to those of other countries [5, 6]. Even though those studies are mostly focused on students ranging from elementary to secondary school, there are few studies on university students.

This study looks into university students who participated in summer camps for meteorological satellite studies as an extra-curricular activity from 2011 to 2014. The study aims to investigate the participants' motivation toward the program and their level of satisfaction afterwards.

To address the goals above, the detailed research questions are as follows:

1. What is the motivation that attracts the university students to participate in the summer camp program for meteorological satellite studies? Does motivation vary by year and learners' individual factors such as gender and major?
2. To what extent are participants satisfied with the summer camp for meteorological satellite studies? Does satisfaction vary by year and learners' individual factors such as gender and major?

2 Brief Literature Review

Lee and Paek [1] studied students of racial minorities in the U.S during the attempts to enhance their performance ability and interest in science and mathematics. They divided the students into two groups: those who participated in after-school research activities, writings, field trips, and family support programs, and those who did not do so at all. The results showed that science scores from those who participated in such activities were significantly higher than those who did not. In addition, the former group was more positive towards project activities, and their self-concept significantly increased during the project.

Darling, Caldwell, and Smith [2] applied the panel data carried out in nine different high schools in the states of California and Wisconsin from 1987 to 1991 to study the influence of extra-curricular activities in the schools on the participating adolescents' alcohol use, drug use, academic performance, learning attitude, and learning atmosphere. The results indicated that students who took part in extra-curricular activities had higher academic scores, a more positive attitude toward school, and created a better learning atmosphere in class, but there was no positive effect on decreasing alcohol and drug use.

Le [3] investigated the effects of extra-curricular activities in Australia: whether Australian adolescents' taking part in sports and art activities reduces misbehavior (smoking, alcohol, drugs). The finding implied that the effects of adolescents participating in extra-curricular activities on misbehavior depend on activity types, gender, and socioeconomic status.

In brief, the results of literature review showed that most studies on extra-curricular activities were carried out with students ranging from elementary to secondary school, and it is necessary to run extra-curricular activities as complementary actions to regular curricular activities. Moreover, extra-curricular activities in general (more or

less different from the variables) had a positive influence on cognitive and affective development. Despite the difference in cognitive and affective aspects among elementary school, secondary school, and university students based on such results, it can be rational to say that extra-curricular activities for university students may also have a positive influence on their cognitive and affective development.

3 Methods

Participants in this study were 127 undergraduate students. They all joined the summer camps that have held four times from 2011 to 2014 during the summer vacation, for four days and three nights. The survey questionnaire distributed in the closing ceremonies of the summer camp programs in each year were kept to be the same. It consisted of two main categories (11 items) asking about the motivation of program participation and program satisfaction. Frequency analysis, *t*-test, and ANOVA were conducted to analyze the data. Authors performed every data analysis with a significance level of less than 5% ($p < .05$).

4 Results

First, regarding of participants' motivation towards the summer camp for meteorological satellite studies as an extra-curricular activity, 84 out of 127 (66.1%) respondents answered that they participated in the program "in order to increase learning ability of their major", which was the most popular response, and "highly recommended from my professor" (29.9%) as the least popular response. These findings indicate that the undergraduate students in the summer camp for meteorological satellite studies acknowledge that they could strengthen their competence in their major through the summer camp programs. The results also show they participated out of their own will rather than through the recommendation from others. In addition, students' motivation was different depending on year and learners' characteristics (gender and major). The university students normally participate in the summer camp for meteorological satellite studies for the sake of increasing learning abilities in their major and cultivating competency to get a job related to meteorology, though there was a little discrepancy in ranking. Although there was a slight difference according to gender, it was only the first and the second priority which were inverted, and both female and male participants had similar reasons to join the summer camps in principle. By major, in the case of atmospheric science majors, "to find a job related to meteorology after graduation" was the most common answer, followed by "to increase their learning ability of their major", whereas in the case of other majors, "to increase their learning ability of their major" was the most common answer. Thus, it shows that there is a significant difference between the two groups in their motivation towards the summer camps.

Second, the university students participating in the summer camps for meteorological satellite studies are mostly satisfied after the camp. Regarding the questionnaire items "I actively participated in class" and "I will recommend this camp

to my colleagues”, there was not much difference in satisfaction with the camp participation by year. However, regarding the question items “I learnt enough necessary knowledge through the classes”, “I learnt a lot of new knowledge through the classes”, and “I am generally satisfied with the contents of the classes”, satisfaction with the camp participation varied by year. Regarding the questionnaire item, “I will recommend this camp to my colleagues”, related to the satisfaction with the camp participation, male participants’ responses were higher than those of females. Other than this questionnaire item, there was not much difference among other questionnaire items between genders. Among different majors, there was not much difference in the satisfaction with the camp participation, both in terms of overall satisfaction and individual items.

Third, those who participated in meteorological satellite summer camp were satisfied with the camp operation. Among the years (2011-2014) that the camp took place, there was no difference in the satisfaction with the camp operation in terms of both overall satisfaction and the individual questionnaire items. By year, there was no difference in the satisfaction with the camp operation between genders. By year, in addition, there was no difference in the overall satisfaction with the camp operation, both in terms of the overall satisfaction and individual questionnaire items among majors.

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