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IMPLEMENTING CREATIVE LEARNING COMMUNITY PROJECT FOR FIRST YEAR STUDENTS

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Implementing Creative Learning Community Project for First Year Students

Synopsis:

Yonsei University has implemented the program called RC Creative Platform since 2016. It is an educational project of developing learning communities for first year students in the residential college environment. It is designed as an integrated approach of experience-based, problem-based and community-based project. The purpose of this project is to improve students' problem-solving ability, creativity, challenging spirit and leadership through the opportunity of peer learning.

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Abstract

With the advent of the era of the Fourth Industrial Revolution, we faced the paradigm shift of higher education from acquiring knowledge to the strengthening of competencies. We developed a creative learning community project for the first year students to improve competencies, such as problem-solving ability, creativity and communication skills. We will discuss the background of program development, program outline and operation method, and feedback of students.

I. The background of developing the project

The fourth industrial revolution becomes a reality. How can teaching and education change or does it have to? We faced the paradigm shift of higher education. As Artificial Intelligence (AI) is better than human in the area of acquisition and application of knowledge, we need to develop educational programs to enhance competencies, such as creativity, problem-solving ability, communication skills and teamwork (collaboration capabilities) during college years. Learning communities can be assumed to be one of those educational programs.

Learning communities are regarded as one of high impact educational practices beneficial for college students. Their key goals are to encourage students to integrate learning across courses and to involve them with "big questions" that matter the beyond to classroom (Kuh, 2008). They foster the social construction of knowledge, cooperative learning, active learning, an emphasis on the integration and synthesis of diverse student perspective, as well as student-student, student-staff, and staff-staff collaboration (Smith, 1993). Further, Hill (1985) suggests that the learning community provides opportunities for students to think critically, solve complex problems, and become life-long learners. Pike (1999) demonstrated that students participating in residential learning communities had higher levels of involvement, interaction, integration, and gains in intellectual development than students in traditional residential learning arrangements. Moreover, the undergraduate learning community is being increasingly advocated and implemented to meet the needs of incoming freshmen.

II. The development of the Creative Learning Community Project

Yonsei University¹ has implemented the program called RC Creative Platform since 2016. It is an educational project of developing learning communities in the residential college environment. We designed it as an integrated approach of experience-based, problem-based and community-based project. The students participating in residential learning communities are supposed to find out the problems faced by our institution, community and further the global environment and to suggest their ideas to solve out them. The purpose of this project is to improve students' problem-solving ability, creativity, challenging spirit and leadership through peer learning.

RC Creative Platform was first launched in 2016, and at that time it was a one-semester project. It was the first full-scale annual event since 2017, and the students revitalized the activities of the learning communities.

III. The operating procedure of RC Creative Platform

The residential college of Yonsei University consists of 12 houses. Primarily, students in the same house are encouraged to make a team with 5 or 6 members with diverse majors, which enables them to integrate and synthesize diverse perspectives. In fact, there have been a number of learning communities made up of students from a different house. Teams selected through the evaluation of each house could get undergraduate research fund during the project. If needed, mentoring would be offered. The research spaces called CREYON (CREative YONsei) are offered exclusively for this project. Every team is supposed to take part in RC Creative Platform Fair at the end of the second semester and excellent 5~6 teams among them have a chance to join the final competition for the short-term overseas research trip.

¹ Yonsei University, in Seoul, Korea, opened international campus where all freshmen are required to live in a residential college for one year from 2013.

In 2017, this project was first run as a year-round program. 2017 RC Creative Platform launched with a special lecture of startup CEO and a project briefing session on March. After three weeks of team building period, about 350 students of total 69 teams from 12 houses applied for participation. Their project themes were diverse such as a solution to inconveniences in dormitory life, campus safety issues, and consideration for the disadvantaged of society. In May, we offered the second lecture of startup CEO to enhance understanding of creativity and share the experiences of the startup. During the first semester, the students discussed mainly the topic exploration and the project implementation method through several meetings and submitted an interim report at the end of the semester. At the start of the summer vacation, about 50 students visited Nexon Corporation sponsoring this project and had a brief company tour and a special lecture on team play. It was a good opportunity to experience the creative and free corporate atmosphere of IT company.

As the second semester began, the students began to think deeply about how to carry out the actual results based on the research they have done so far. To give practical help to them, there were two special lectures; the first done by a patent attorney titled 'Intellectual Property and Technology Protection', and the second by a startup CEO under the heading of 'Creative Talent and Start-up'. After the lecture, he also offered mentoring sessions twice with regards to the development of the application.

Students participating in one-year RC Creative Platform project were required to submit a final report and exhibits including posters to RC Creative Fair in November. There was a briefing to prepare for the exhibition ahead of the fair. Finally, 33 teams exhibited their works at the fair and six outstanding teams were selected. There was RC Creative Platform Competition at the end of the semester and the results of the six teams are shown in the table below.

No.	Team Name	Explanation of Project	Result
1	Y-atcH	Produced a kiosk for quickly checking tasks, a task-notifying app for professors, and a smart watch for receiving task notices in real-time through YSCEC	Grand Prize
2	Yonsei~tak!	Produced an app that provides the current use status of public washing machine. With Raspberry Pi and NFC reader attached to the washing machine, if you tag the washing card and the washing machine number will be sent to you	First Prize
3	King God Emperor General Majesty Chungmugong Yonsei	Produced an app that provides the current use status of public washing machine & drying rack, by using the communication of Ethernet Shield	Excellence Prize
4	Potential Energy 521	Developed a student cafeteria reservation system that allows you to order food in advance and pick it up at the appointed time	Excellent Prize
5	Yonsei Poomasi	Produced an app for transacting personal service assets	Excellence Prize
6	SIGNAL	Produced an app for guiding the disaster escape routes and sharing the disaster conditions by using Beacon technology	Excellence Prize

Grand Prize winning team got the chance to overseas research trip to the United States, and they visited Silicon Valley and Stanford University according to their own plans. The other five teams participated in a three-day workshop on Jeju Island where Nexon headquarters is located. We had time to evaluate the overall operation of the project.

IV. The evaluation of RC Creative Platform

The 2017 RC Creative Project was the first year of the annual program. To assess the program, we summarized the final report submitted by the students and the comments from the evaluation meeting at the workshop. We divided the feedback of the students into what we have learned and what we need to improve.

<What we learned>

At the beginning of the project, the students didn't know about technical areas such as how to use 3D printer and how to develop application, but they learned through project activities and could actually implement them. It was difficult for the students from different

majors to gather together for a year to study, but this opportunity enabled them to develop their communication skills and leadership skills. Through the nighttime learning community meetings, the students could learn how to gather opinions and find the best directions in the process of brainstorming and to complete their ideas. The Fair and Competition provided the students with the opportunity to share ideas, work processes and outcomes from other teams and learn how similar research topics could be addressed through different approaches.

<Points to improvement>

First, there were some comments on the project progress. Complex procedures and staff turnover made it difficult to use activity grants. In carrying out the project, the students needed a proper and safe place to store equipment or devices. The gap between the first and second prize was too great. Second, with regard to lectures and mentoring, there was feedback on the timing of lectures and the diversity of mentoring. They suggested the topic of the lecture matching the course of the project. For example, there was a special lecture about the planning of the application at the time of developing the real application. There was also a need to offer proper mentoring depending on the research topic, as mentoring content for application development and product development may differ. In addition, they suggested the use of SNS to connect mentor group and project participants and to include the previous award team in the mentor group. Finally, with regard to competition assessment, the students expected the criteria clear and announced in advance and suggested to include not only professional judges but also general students' opinions in the future.

V. Conclusion

The students learned through involvement in the activities with peers. RC Creative Platform as a creative learning community project for the first year students is an effective way to improve competencies such as creativity, problem-solving skills, communication skills, teamwork and leadership in the residential setting.

References

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