Significance and Effect of the Educational Program of Creative Reconstruction by the University of Tsukuba Focusing on Art for the Great East Japan Earthquake

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ABSTRACT

The purpose of this research paper is to discuss whether the Creative Reconstruction Program contributed to supporting reconstruction in the wake of the Great East Japan Earthquake, and also to review its significance as an educational program.

The defining characteristic of this program was that students and teachers from many fields provided reconstruction assistance in a cooperative manner. Looking back at organizing ten or so teams for each year of the program and their activities, it was felt that these activities produced good results in terms of reconstruction support.

This program aimed to produce human resources possessing the ability to connect, the ability to transmit information, and the ability to breakthrough. After analyzing the results of a questionnaire investigation of the educational effects on students, it was found that their prowess in these three abilities grew in a well-balanced manner.

1. INTRODUCTION

The Educational Program of Creative Reconstruction¹ took the lead and was conducted by the Faculty of Art and Design of the University of Tsukuba for four years from April 2012 (one year after the Great East Japan earthquake) to March 2015.

The defining characteristic of this program was that students and teachers from many fields provided reconstruction assistance in a cooperative manner. The aim of this program was to produce human resources possessing the ability to connect, the ability to transmit information, and the ability to breakthrough.

The purpose of this research paper is to discuss whether this program contributed to supporting reconstruction after the earthquake, and to also review its significance as an educational program, especially for Art and Design students.

2. METHOD

This paper first presents a summary and describes the characteristics of this program, which had both the aspects of reconstruction support and human resource development. Then the achievements and significance of the project are ascertained through the results of a questionnaire investigation of students who attended the classes, by brainstorming with teachers, and by referring to approaches taken by other universities.

Questionnaire investigations of students prior to classes

Investigation 1: April 11, 2014. Total students: 76; valid respondents: 34 (45%)

Investigation 2: April 10, 2015. Total students: 66; valid respondents: 55 (83%)

Questionnaire investigations of students after classes

Investigation 3: December 2, 2013. Total students: 110; valid respondents 76 (69%)

Investigation 4: December 20, 2014. Total students: 86; valid respondents 58 (67%)

Investigation 5: December 19, 2015. Total students: 78; valid respondents 62 (79%)

3. CHARACTERISTICS OF THIS PROGRAM AND ITS SIGNIFICANCE AS RECONSTRUCTION SUPPORT

3.1 Approaches by other universities and the characteristic of this program

There are many approaches taken by other universities regarding the Great East Japan Earthquake disaster. They are classified broadly into three groups: (1) Volunteer activities with exigency; (2) Activities using conventional classes; (3) New classes for human resource development.

This program fell under classification (3). The University of Tsukuba is in an adjacent area to Fukushima Prefecture, which suffered serious damage from the accident at a nuclear power plant damaged by a tsunami generated by the earthquake. The main characteristic of this program is that it had both the aspects of reconstruction support and human resource development; that it used the perspective of art; and that it was conducted over a four-year long-term.

3.2 Summary of this program and the significance of reconstruction support

The main classes in this program were "Vision Formulation assignments" and "off-campus Challenge assignments"². These classes had a system under which the students can take them continuously for up to four years, from a department third grader to master's course two year, and 500 students took these classes. In these two classes, students and teachers were formed into ten or so teams for each year of the project and performed activities. The students researched and discovered problems in damage areas in "Vision Formulation assignments," and drafted plans to solve them in "off-campus Challenge assignments". Figure 1 shows the transition of the teams over four years.

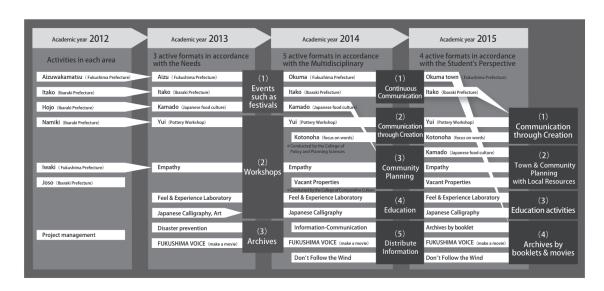


Figure 1: Transition of the teams over four years

Looking back at organizing ten or so teams every year, the activities were those for each area in the first year, and they developed into three active formats: (1) Events such as festivals; (2) Workshops, and (3) Archives in accordance with the needs of the disaster areas for the second year; and these were developed into fore activity formats: (1) Communication through Creation; (2) Town planning and community planning with Local Resources; (3) Education activities in each area; and (4) Archives by booklets & movies

pursuant to the actual situation of reconstruction of disaster areas with meticulous care after the second year. It was also found that the perspective of art could be easily included in the activities. All of the above are achievements of a four-year, long-term reconstruction support project. Thus, multiple activity models that can cope with situations that change with time have been developed in preparation for future disasters. This achievement is considered to of high value.

4. VALIDITY AS AN EDUCATIONAL PROGRAM

4.1 Reasons given by students for attending the classes

The top answer to the question "What do you want to acquire from this course?" (Investigations 1, 2) was the "ability to act" in 2014 and 2015; and the answers "ability to communicate" and "ability to come up with ideas" increased in 2015, which shows that the answers to this question changed over time. Looking at the answers by discipline, in which code-sharing is employed, it was found that the students of the School of Art and Design wanted to acquire the "ability to communicate" in particular; while those of the College of Policy and Planning Sciences wanted to acquire the "ability to come up with ideas;" and those of the College of Comparative Culture wanted to acquire the "ability to act."

4.2 Educational effects on students

As stated earlier, this program aimed to produce human resources possessing the ability to connect, the ability to transmit information, and the ability to breakthrough. After the classes, the students evaluated the three abilities themselves (Investigations 3-5). In the investigation, the three abilities were replaced with six additional scales, and students evaluated them in five phases ranging from "strongly agree" (5 points) to "strongly disagree" (1 point) themselves. Figure 2 shows the question items and averages of the points in 2015.

The results of the students' self-evaluations showed the students had the "ability to connect" (3.5, 3.5 points), but didn't have the "ability to transmit information" (2.9 points, 2.9 points) acquired these abilities well-balanced manner (+1.1, +0.8 points). We got the same results in 2014 (+1.2, +0.8 points), indicating that the growth width of these items is big, and this result is considered to be of high value in terms of the educational effect. Looking at the results by discipline, in the case of the students of the School of Art and Design, although their results were low in all items before the classes, they improved after the classes and scored themselves high in "ability to transmit information (understanding how to communicate with individuals and society)" in particular (+1.2 points).

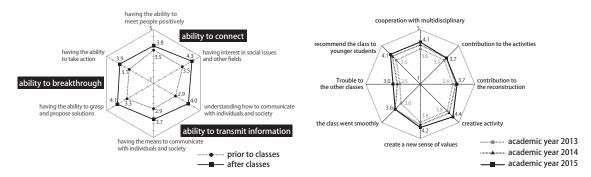


Figure 2 (left): Results of students' self-evaluations in 2015 Figure 3 (right): Result of class evaluations for 2013-2015

4.3 Class evaluation by students

We also carried out class evaluations over three years (Investigations 3-5), in which the students evaluated eight phases as "strongly agree" (5 points) to "strongly disagree" (1 point). Figure 3 shows the question items and averages of the points for 2013 to 2015.

When I compare the averages of points over three years, the averages are slightly finished about all question items every year. The growth of the question item "My team carried out a creative activity" was outstanding in particular (+0.6 points), and this result became the highest evaluation (4.4 points) in the eight items. Furthermore, the question item "I was able to create a new sense of values" has the high average (4.2 points), and shows that students feel the achievement of having engaged in creative reconstruction, which was the aim of this program.

5. CONCLUSION

All of the above are achievements of a four-year, long-term reconstruction support project. Thus, multiple activity models that can cope with situations that change with time have been developed in preparation for future disasters. This achievement is considered to be of high value.

In addition, from the students' self-evaluations, it was shown that a certain result was achieved in the aspect of human resource development. However, an evaluation method has not been determined yet for the reconstruction support aspect of this program. It may be necessary to set a more easily comprehensible goal for students who are involved in the activities only for one year. Of course, this task should be closely examined together with the residents in disaster areas.

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We investigated this paper thoroughly again.

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- 1 Human resource development program towards Creative Reconstruction by artists/designers and a multidisciplinary problem-solving team
- 2 In this program, 16 classes were established, which were attended by more than 1,700 students.

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