

Improvement of GIS exercise classes using the GIS open educational resources based on questionnaire surveys

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Free and open source GIS software has been utilized for GIS education all over the world. However, as far as we recognize, GIS education in many Japanese universities underutilize such software packages. Therefore, we developed GIS exercise materials explaining spatial data analyses using free and open-source GIS. We have been providing these materials for higher education and designated them as the GIS Open Educational Resources. We used the materials in a university exercise class, which was held as an intensive course for three days at The University of Tokyo. During the exercise, we have conducted questionnaire surveys to clarify the three criteria: difficulty, understanding and satisfactory levels of the students. The results showed that the students felt difficulty in some situations such as the utilization of GIS for the first time and complex operations using different types of data. The contents of the exercise syllabus and materials were improved based on the feedback. We conducted another GIS exercise class at the university to verify the utility of improvements. In this presentation, we show the improvements in the exercise syllabus and the comparison of educational effects on students before and after the improvements.

Keywords: GIS education, exercise, Open Educational Resources, Free and open-source GIS