Using self-rated data can face limitations because the data is not made with objective measurement. We need to be careful to develop the course with adequately assessing the effectiveness of the course.

4) It becomes possible to identify a mutually subjective index by adopting students' self-assessment on learning outcomes in the course on disaster risk reduction, which has not yet to be introduced in earnest.

2) When the students understand issues on disaster risk reduction, considering with the four keywords, in higher level, they may achieve higher performance at the exam.

1) The students have different knowledge levels at the entrance of higher education from our analysis.

**Findings**

1) The students have different knowledge levels at the entrance of higher education from our analysis. Students need an evaluation how the new program goes and how we can improve the course. In the first step, we focus on influence of students' attributes on their understanding and performance.

2) When the students understand issues on disaster risk reduction, considering with the four keywords, in higher level, they may achieve higher performance at the exam.

3) Not just exam performances, higher level of understanding may give an impact on the students' motivation to learn further.

4) It becomes possible to identify mutually subjective index by adopting students' self-assessment on learning outcomes in the course on disaster risk reduction, which has not yet to be introduced in earnest.

**Limitation**

Sample size used in this analysis is small, so we need to be careful to deal with implications. Using self-rated data can face limitation because the data is not made with objective measurement. We need to be careful to develop the course with adequately assessing the effectiveness of the contents/education delivered in the course.

**Reference**
