A CASE STUDY ON THE DEVELOPMENT OF STATISTICAL THINKING USING MULTIVARIATE DATA␣BASED ON OLYMPIC DECATHLON

Koki Hosoda, Graduate School of Comprehensive Human Sciences, University of Tsukuba, Japan
khosoda@human.tsukuba.ac.jp

In highly-networked information society, statistical thinking to judgment and prediction based on data is required. To develop high school student's statistical thinking, we focused on teaching materials using multivariate data. The purpose of study is to clarify the students' process of using multivariate data and to examine the way of guidance to develop statistical thinking. To achieve them, firstly, we developed the teaching material using Olympic Decathlon data for Grade 10. Secondly, we analyzed small lesson about it for 7 students. The result, we revealed difficulty of focusing on the relevance of the data variables and statistical evidence. As conclusion, it is necessary to teach analyzing data qualitatively and quantitatively and data variables difference.