

Workshop on Visual Data Analysis with the R Program

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ABSTRACT

Statistical data analysis studied in universities generally focuses more on mathematical analysis procedures and pays less attention to visual analysis. Visual analysis is very useful for statistical users or researchers who do not understand mathematical procedures. At Mercu Buana University, visual data analysis material is still very limited. Therefore, in service activities or lecturers carrying out activities outside campus, a visual data analysis workshop with the R program was proposed. The R program was chosen because it is free of charge and provides complete facilities for visual data analysis. The solution offered by Yogyakarta State University Statistics lecturers is holding a visual data analysis workshop with the R program. The workshop activity will contain a number of materials about the procedures and uses of visual data analysis which will contain an introduction to exploratory data analysis, errors in data visualization, then an introduction to the use of the R program, management with the R program, visual data analysis for group descriptions and comparisons, and visual data analysis for relationships between variables. The target of this activity is to provide understanding and skills to workshop participants. The expected output from this activity is articles in the journals of MIPA Community Service and MIPA Education, and Intellectual Property Rights. Evaluation of participants' ability to understand the material was measured through 14 questions with four Likert scale responses (Strongly Agree, Agree, Disagree, and Strongly Disagree). Based on 40 participants who were willing to complete the evaluation questionnaire, 27.86% answered "Strongly Agree", 71.96% "Agree", and only 0.18% answered "Disagree" regarding understanding, performing and applying the technique visual data analysis with the R program. Therefore, it can be concluded that the majority of participants were able to understand the workshop material and follow the training well.

Kata Kunci: *Visual Data Analysis, R Program, Workshop*