

# **EFFECTIVENESS OF INTERNET-BASED COMPUTER PROGRAMMING ACTIVITIES AMONG IT STUDENTS**

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The purpose of this study was to determine the effectiveness of internet-based computer programming activities. The study was conducted with 104 JRU students who were in second year college taking up B.S. Information Technology. A convergent parallel mixed methods design was used, a type of design in which qualitative and quantitative data are collected in parallel, analyzed separately, and then merged. Students were divided into two groups, the control group and the focus group, each group was given the same programming activity to apply the topics. Graphical in Java programming was discussed in class before the laboratory programming activity, with one hour time limit to solve and run the program output. The control group used the traditional approach (without internet access) in solving programming activity while the focused group did the same programming activity with internet access wherein students could browse online programming tutorials or programming examples to help them solve and run the program activity. The understanding of the problem, the solution strategies and algorithms employed, and the accuracy of the solution and programming codes were evaluated using the computer laboratory rubric. The average grade of each group was compared. Multiple forms of evidence were analyzed to measure students' performance including observations of student engagement in the process of completing the activity, and an online survey among the focused group students to get their experiences and insights on internet-based programming activity.