

**THE INFLUENCE OF THE USE OF HANDOUT FOR THE SUBJECT
OF GRINDING CHISEL AND CUTTING TOOLS TOWARD STUDENTS
LEARNING ACHIEVEMENT FOR CLASS II IN SMK STATE 3
YOGYAKARTA**

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ABSTRACT

The purpose of this research is to know the difference of learning achievement between the students who do not use handout with the students who use handout for the subject of grinding chisel and cutting tools in the class 2 program study of machinery technique in SMK state 3 Yogyakarta.

The population in this research was all of the students in class 2 the program study of mechanical engineering in SMK N 3 Yogyakarta. Sample taking for this research was done by random sampling. The experiment class was 2 TP 4 class and the control class was 2 TP 3 class. The numbers of students from every class is about 30 students. The students for 2 TP 4 class using handout for the students learning process and the students gathered and listened the material which was conveyed and also the students completed the materials in the handout. Meanwhile the class 2 TP 3 used the material photocopy in students learning process, they gathered and listened only the materials given. The data analysis technique in this research was t test. Before the t test was done, it was done the test of analysis rules, they were normality test and homogeneity test. The significance standard in this research is 0,05.

From the result of data analysis, it can be concluded that the achievement of control group students on the pre test the average value is 56,13. Meanwhile the experiment group students on the pre test the average value is 54,10. After the students were given the treatment the next step students were given the post test and the average value was 65,13. Meanwhile the students who used the handout the average value was 80,47. From the result of t test was founded t arithmetic $>$ t table it was $15,872 > 2,002$. By the result, it can be known that there was a significance learning achievement increased in the experiment group after given treatment the use of handout compared by the learning achievement of the control group.