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A Study of Laboratory Teaching

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A STUDY OF LABORATORY TEACHING

J. W. WOODROW

A committee was appointed in 1930 at Iowa State College to make a study of methods of laboratory instruction. This study has brought out some rather interesting information which it is thought may be of general interest.

Some of the more interesting problems considered by the committee are; length of laboratory period, demonstration laboratory, size of section, correlation between laboratory and recitation, organization of course, equipment and qualifications of a good laboratory instructor.

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EXPERIMENTS ON THE EFFECTIVENESS OF LECTURES IN COLLEGE PHYSICS

C. J. LAPP

At the beginning of the school year 140 students registered in College Physics in two sections to meet at eight and nine o'clock respectively. During the first semester four mid-semester examinations each containing 50 objective items of the multiple situation type were given. The average of the mid-semester examinations was found to correlate almost perfectly with the corrected Nationwide Examination in College Physics used as a semester final. On the basis of these achievement data it is possible to select groups at random from either section and compute their relative achievements. Using this method to predict what a given group might be expected to achieve, four separate experiments have been performed on the effectiveness of physics demonstration lectures. In two experiments the object was to see how well the students could explain theory that was developed and demonstrated by the use of lecture experiments. The same theory was partially covered in the text-book. About 40 per cent of the students were sent out of the room before the lecture. Two days later examinations showed that in proportion to their expectancy the student who did not hear the lecture or see the experiments knew fully as much about the theory and its application as did those who remained in the lecture room.

Two other experiments were performed using a similar educa-