

Thesis Title            Comparison of Learning Achievement, Scientific Process Skills and Scientific Attitude of Matthayomsuksa 1 Students on the Topic of Plant Using Cooperative Learning with JIGSAW II Techniques and the Traditional Instruction.

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### **ABSTRACT**

The purpose of this research were to 1) compare the Matthayomsuksa 1 student's learning achievements, scientific process skills and scientific attitude on the topic of 'Plant' between before and after using the Cooperative Learning with JIGSAW II Techniques and 2) compare their learning achievements, scientific process skills and scientific attitude on the topic 'Plant' between using the Cooperative Learning with JIGSAW II Techniques and the traditional instruction. Samples were selected from Matthayomsuksa 1 students who were in the 1<sup>st</sup> semester of the academic year 2014 at Chai Badan Wittaya School, Chai Badan District, Lop Buri Province by the purposive samping of 2 classrooms. Then they were divided into 2 groups using simple random sampling by drawing lots. Names of these 80 students were drawn and put into 2 groups: 40 students in a control group who were taught in the traditional instruction and another 40 students in an experimental group who were taught with the Cooperative Learning with JIGSAW II Techniques. The research instruments were 1) lesson plans of 'Plant' using the Cooperative Learning with JIGSAW II Techniques, 2) lesson plan of 'Plant' using the traditional instruction, 3) a learning achievement test of which the reliability was 0.72, 4) a science process skills test of which the reliability was 0.78 and 5) an scientific attitude test of which the reliability was 0.95. The statistics used for data analysis were percentage, mean, standard deviation, t-test and One Way Analysis of Covariance.

Result of the research :

1. The student's learning achievement, science process skills, scientific attitude after learning with the Cooperative Learning with JIGSAW II Techniques was higher than before learning at .05 level of significance.

2. The student's learning achievement, science process skills, scientific attitude after learning with the Cooperative Learning with JIGSAW II Techniques was higher than the learning achievement after learning with the traditional instruction at .05 level of significance.