The aims of this study are to determine the effect of learning together, reading-writing-application methods on academic achievement and students’ understanding of topics in science and technology course and to inform science and technology teachers about cooperative learning method. In this study; in analyzing the effects of teaching materials or teaching methods in different schools and classrooms, it is more convenient to use the quasi-experimental research design. A quasi-experimental design in which participants are not randomly assigned to the groups, instead, there are naturally occurring groups or groups to which participants are assigned for reasons other than randomizing the sample was used in this study. The study utilized “a pre-test/posttest non-equivalent comparison group design.

The sample of this study consists of 34 science and technology teachers working in Iğdır and 318 students studying at six secondary schools in this city. In this study consisted of three different classes enrolled in the science and technology topics for the 2011-2012 academic years. One of the classes was selected randomly as the together learning group, in which the cooperative together learning method was applied, the second was selected as the reading writing application group, in which the cooperative reading writing application method was applied, and the third was selected as the control group, in which the standard traditional method was applied. Volunteers were given background information regarding the study prior to consent. During the training period, instruction for the treatment groups was delivered by the researchers. Before the beginning of the treatment, the teacher gave information about learning objectives, the instruction process, and rules of working in a cooperative group, roles, and assessment strategies.

In this research, the Prior Knowledge Test (PKT), and Academic Achievement Test (AAT) were used to collect data. This test was created by the researchers. Prior Knowledge Tests (PKT) consists of 30 multiple-choice questions for the 6th grade, 7th grade and 8th grade with each question worth four or five points. The questions in the test were related to the 6th grade, 7th grade and 8th grade science and technology course. This test was given to students who were not involved in the study but had previously taken the course in which the 6th grade, 7th grade and 8th grade science and technology course topics mentioned above had been taught.

Academic Achievement Tests (AAT) consists of 30 multiple-choice questions for the 6th grade, 7th grade, and consists of 25 multiple-choice questions for 8th grade with each question worth five points. This test was created by the researchers. The questions in the test were related to the 6th grade, 7th grade and 8th grade science and technology course. This test was given to students who were not involved in the study but had previously taken the course in which the 6th grade, 7th grade and 8th grade science and technology course topics mentioned above had been taught.

In the treatment groups, this study was conducted over a four-week period during which the matter structure and properties unit was taught as part of the regular curriculum in the science and technology course. Classroom instruction for the treatment groups consisted of four class hours per week. The classes were defined as the two experiments and a control group. To determine students’ prior knowledge in science and technology courses was administered to the groups before the instruction. Next, the matter structure and properties unit was studied in three groups. Two different instructors were involved in the teaching. While one of the teachers actually taught the course, the first teacher, an expert (the second author) in cooperative learning, observed the teaching process in the groups. In this study, obtained data was analyzed descriptive statistics and one-way ANOVA.

As the result of the study, it was determined to be close each other of the effect of learning together, reading-writing-application methods on academic achievement and students’ group investigation and reading-writing-application method on students’ academic achievements.