IMPLEMENTASI MODEL RESEARCH ORIENTED COOPERATIVE INQUIRY LEARNING DALAM PEMBELAJARAN KESETIMBANGAN KIMIA UNTUK MENGEMBANGKAN KEMAMPUAN BERPIKIR KRITIS DAN SIKAP ILMIAH SISWA SMA

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ABSTRACT

Students' critical thinking skills and scientific attitudes have not been maximally developed in learning. One of the solutions offered to solve these problems is through the application of the Research Oriented Cooperative Inquiry Learning (REORCILEA) model. The research objective was to analyze the effect of the REORCILEA model in learning chemical equilibrium on the critical thinking skills and scientific attitudes of high school students. The research conducted was a quasi-experimental research. The research design was the pretest-posttest non equivalent group design. The research stages were the preparation of learning tools oriented to the REORCILEA model including RPP and LKPD; implementation of the REORCILEA model; analyzing the profiles of students' critical thinking skills and scientific attitudes in learning chemical equilibrium, as well as evaluating the learning implementation using the REORCILEA model. The REORCILEA model syntax consists of (a) initiating, (b) Hypothesizing, (c) Experimenting / Experimenting, (d) Writing / writing scientific articles and (e) evaluating and reflecting. The instruments used included a critical thinking ability assessment rubric, a scientific attitude questionnaire, and a response sheet for the implementation of the REORCILEA model. Data analysis techniques include statistical tests with the Manova technique (multivariate analysis of variance). The results obtained in this study are that there is a significant difference in the scientific attitude and critical thinking skills of students with the class average score that applies the Research-Oriented Collaborative Inquiry Learning (REORCILEA) learning model which is higher than the class that applies the scientific approach. The effective contribution of REORCILEA learning model for scientific attitude is 15.8% and critical thinking ability is 13%. The profiles of each aspect of students 'scientific attitudes and students' critical thinking skills show high and very high categories and students give positive responses to the application of the REORCILEA learning model. The results obtained were successfully compiled research-based learning model-oriented learning tools, could be implemented REORCILEA learning model, analyzed the influence of learning models on the critical thinking skills and scientific attitudes of high school students, and evaluated the profiles of students' critical thinking skills and scientific attitudes. The results of research on the profile of students' critical thinking skills and scientific attitudes through the application of the REORCILEA model have been published in the IOP Conference Series and in International Journals and IPR Registration in the form of copyrights for Critical Thinking Ability Instruments, REORCILEA-based Learning Implementation Plans, and REORCILEA-Based Student Activity Sheets on Chemical Equilibrium Learning.

Kata Kunci: *critical thinking skills, learning tools, REORCILEA, and scientific attitudes.*