

The Impact of a Scaffolded Modeling Curriculum on High School Students' Modeling Air Quality

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Abstract

The purpose of this study was to investigate how students' modeling skills changed in a scaffolded modeling learning environment. We interviewed 43 tenth graders before and after they received 7 lessons (3 hours per week) about air quality. Students' pre- and post - interviews were analyzed for modeling skills using a 4-dimension coding scheme which were adapted from Hsu's and others' (2006) study. The findings indicated that students' modeling skills have been improved through a modeling tool and a range of learning activities to encourage model-based reasoning.