

Learning chemistry through social interactions and classroom assessments

S Karunaratne^{1*} and M M Jamila²

¹ Faculty of Science, University of Peradeniya, Peradeniya

² Postgraduate Institute of Science, University of Peradeniya, Peradeniya

This study presents how GCE A/L chemistry students improved their achievement levels through collaboration in their groupwork and assessing themselves and peers. Learning occurs in a social environment. Collaborative learning relies on social interactions of students. The sub unit, dynamic equilibrium, under the unit on "Equilibrium" was selected for the study. After observing how this sub unit was taught in a girls' school in Kandy district, six lessons were planned considering the students' prior knowledge to build up concepts in dynamic equilibrium. A girls' school and a boys' school in

Kandy district were selected for the study. Based on prior observations a pre-test was designed and administered in both classrooms before implementing the lesson plans. In the first lesson three worksheet activities were planned to develop students' understanding of equilibrium considering their prior knowledge of equilibrium. The other lessons were planned to develop concepts related to dynamic equilibrium in chemical reactions, characteristics, equilibrium constant, effect and applications of dynamic equilibrium in real world situations. In all the six lessons, students had to work individually as well as in groups. They performed different roles and assessed themselves and peers under the guidance of the teacher. They organised a quiz at the end of the sub unit and made group presentations on applications of dynamic equilibrium in real world situations. Post-test showed their improvement in achievement. Students appreciated their learning habits and collaboration which they wanted to continue in learning other subjects. The whole activity encouraged students' collaboration to reach the objectives of lessons in a friendly environment. Teachers made efforts in constructing a social environment to enhance learning. Teachers need to be provided with guidance in planning continuous assessments with peer discussions to motivate students to build up science concepts.

* sunrank@yahoo.com

Tel: 081-2394683