

## Using teacher prompts to develop group communication in an active learning environment

Alexandra Yeung & Suzanne Ahern  
Curtin University

Active learning has shown to improve student learning and engagement (Cole, Becker, & Stanford, 2014). Curtin University uses an active learning framework in its first year chemistry units to help students engage better with content, compared with traditional didactic lectures. It is also intended that students develop other skills such as communication. However, these skills are not always explicitly taught and we assume students are proficient communicators when they enter the classroom.

This study aimed to create activities targeting development of group communication. An examination of how students communicate with each other within their group as they complete their learning activities was conducted. The Talk Science Primer was used as a framework for the learning design of the activities where students work through four goals to develop communication skills (TERC, 2012).

Students (n=452) enrolled in an introductory level chemistry unit who had very little chemistry background were divided into two groups – intervention and non-intervention. The interventions were activities conducted in class in throughout the semester. The impact of the interventions was measured using a communication survey (frequencies students used communication prompts in groups) and achievement in a concept inventory relating to chemical bonding and representations.

This presentation will showcase the interventions developed, discuss the student perceptions of the interventions and the impact of the interventions on the use of communication prompts and development of content knowledge.

### References

- Cole, R. S., Becker, N., & Stanford, C. (2014). Discourse Analysis as a Tool to Examine Teaching and Learning in the Classroom. In *Tools of Chemistry Education Research* (Vol. 1, pp. 61–81). <http://doi.org/10.1021/bk-2014-1166.ch004>
- Michaels, S., & O'Connor, C. (2012). Talk Science Primer. Cambridge, MA: TERC. Retrieved from [www.terc.edu](http://www.terc.edu).