

# DEVELOPING GROUP COMMUNICATION IN AN ACTIVE LEARNING ENVIRONMENT

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## BACKGROUND AND CONTEXT

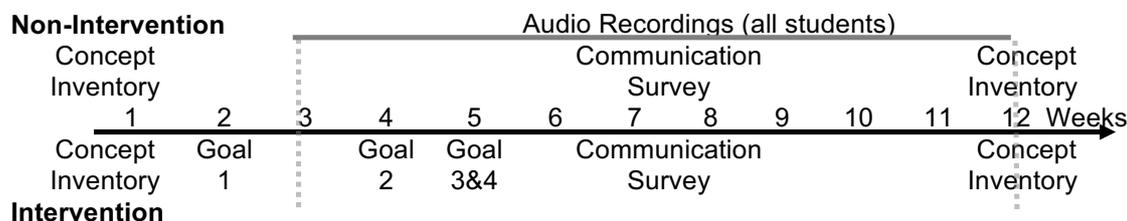
Active learning has shown to improve student learning and engagement (Renée, Nicole & Courtney, 2014). Curtin University uses active learning in first year chemistry courses/units. Students have designated roles when working collaboratively in workshops to complete guided learning activities. Using this structure, students engage with the content conceptually more than traditional didactic lecture method and also develop other skills such as communication. However, these skills are not always explicitly taught and we assume students are efficient in areas such as communication.

## OBJECTIVE

This study aims 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 will be 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).

## STUDY DESIGN

The students were divided into two groups – intervention and non-intervention. A schematic of the study design is shown below. The concept inventory both groups completed related to chemical bonding and representations. The communication survey recorded the frequency students used the goal prompts. The interventions were activities conducted in class in weeks 2 and 4 of the semester and online for week 5 targeting each goal of the Talk Science framework as outlined below.



## PARTICIPANTS

Students enrolled in an introductory level chemistry unit at Curtin University had very little or no previous chemistry knowledge. A total of 452 (96%) students completed the concept inventory in week 1 and 335 (81%) in week 12. A total of 3 non-intervention (184 students) and 3 intervention workshops (268 students) were used.

## PRELIMINARY RESULTS

Qualitative and quantitative data have been collected. Students themselves identified as part of the first intervention that communication is an area that needed further improvement in order to aid their group work. Students responded positively to the interventions according to the communication survey distributed in the middle of the semester.

## REFERENCES

Renée, S. C., Nicole, B., & Courtney, S. (2014). Discourse as a Tool To Examine Teaching and Learning in the Classroom  
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