DEVELOPMENT OF POGIL-STYLE INTRODUCTORY ORGANIC CHEMISTRY ACTIVITIES

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KEYWORDS: inquiry learning, POGIL, group work

ABSTRACT

Foundations of Chemistry IA (semester 1) and IB (semester 2) courses at the University of Adelaide are undertaken by Level I students pursuing a wide variety of degree programs that require a year of Chemistry study. As a consequence, many students who have never studied Chemistry in high school enrol in these courses. We have rewritten these courses for 2012 to cater to students with little or no Chemistry background, with group-based Process-Oriented Guided Inquiry Learning (POGIL) style activities used to deliver the majority of the course content. Early indications are that POGIL-style learning has been successful in improving student performance.

We have been developing POGIL-style activities for all topics within both courses, but particularly in the area of introductory organic chemistry, for which few activities currently exist. Three organic chemistry activities were developed and subsequently tested in workshops run in November 2011 and April 2012. Student volunteers completed a survey consisting of Likert and open-ended questions related to the activities at the conclusion of each workshop. A focus group was also held at the conclusion of the second workshop. A summary of these responses and how they drove the development and revision process of the activities will be presented.