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How student discussions during group work influence learners' performance when doing a Department of Education prescribed life sciences activity.

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How student discussions during group work influence learners' performance when doing a Department of Education prescribed Life Sciences activity.

Jennifer Jean Woolway

A RESEARCH REPORT

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DECLARATION

This research is entirely my own work and has not been previously submitted as a research project, dissertation or thesis at any other university.

GG Woolaway

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University of the Witwatersrand, 2012

ABSTRACT

The aim of this research project was to examine how group discussions influence student performance in a DoE prescribed Life Sciences activity. The research methodology draws on collaborative group work and learner oriented assessment frameworks. The case study was conducted in a suburban high school in south Gauteng. Students were explicitly taught collaborative group work skills. As group work discussions are dependent on subject content knowledge, students were required to complete the assessment activity individually first. Students were placed in groups of four or five that were academically heterogeneous, in an attempt to encourage robust discussions. Following group work discussions students completed a final write up of the assessment activity. Findings from the research showed a statistically significant improvement in the mean pre group work assessment score to the post group work assessment score. All students were found to interact in a co-regulated way in that all were active participants. Each group had at least one member who was a hitch hiker. This student was unprepared and was the most disengaged and passive throughout the group work. The hitch hiker tended to have the lowest post group work activity score for their group. The student whose post group work activity score was the highest was the one who was the most prepared and except for a student whose home language was not the LOLT all others were the most active in their groups. Student discussions were dependent on subject content knowledge. Where subject content knowledge was sound, discussions resulted in cognitive conflict allowing for the social construction of knowledge. Poor content knowledge resulted in discussions which left students confused and seeking help from the teacher. Whilst most students perceived the group work to improve their understanding of the work, the heterogeneity of the groups was raised as a concern by a hitch hiker and students who obtained the highest post group work assessment scores. The hitchhiker in one of the groups perceived that she was not taken seriously, whilst the high academic achievers felt that they were providing information to students who were not well prepared. Most students valued the group work activity and recommended its use for future Grade 11 Life Sciences students.

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2. My grateful thanks go to my students who participated in this research – my hope is that this research informs and enhances the use of group work in Life Sciences classes.

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