Chapter 3
Group Dynamics in Higher Education:
Impacts of Gender Inclusiveness and Selection Interventions on Collaborative Learning

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ABSTRACT

Although group work has been proven to be an effective method for enhancing active learning in the higher education, optimum planning is crucial for successful implementation. A deep understanding of teamwork dynamics and creation of inclusive environments helps groups to demonstrate their optimum performance and output. On this basis, the current research focuses on the important challenge of gender inclusiveness and required teacher interventions to encourage that. Towards this aim, three research hypotheses are developed and tested using student performance data in a series of individual, group, and hybrid assessment. Findings show the significantly different performance of female and male students in group activities. It is also found that instructor interventions to form gender-inclusive groups significantly improve group performance and output. This works contributes to the higher education literature by exploring dynamics of collaborative learning and interfaces with gender inclusiveness. Educators can utilize the findings to better design and implement team activities.

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INTRODUCTION

Within the higher education context, collective learning and group work are found effective for developing capabilities, qualities and skills in students that are considered as important graduate attributes (Denson & Zhang 2010; Caple & Bogle 2013). Previous research has shown the interdependence between group learning and graduate attributes related to employability and resilience (Arashpour, Sagoo et al. 2015). These justify the investment of higher education providers in developing modern learning infrastructure that facilitates 'learning in the round'. Interactive lecture spaces are often equipped with cutting-edge technology to enable peer presentation and group collaboration (Asok, Abirami et al. 2017; Stache, Barry et al. 2017). Sometimes design of learning spaces can be self-configured by students to better suit collaborative activities (see Figure 1).

Although modern and interactive spaces provide the required infrastructure for collaborative work, the role of instructors in facilitating 'learning in the round' is still crucial (Arashpour & Aranda-Mena 2017; Khuzwayo 2018). Educators should encourage student groups to work efficiently on collaborative assignments with the aim of developing decision-making skills, communication and critical thinking (Schaber, McGee et al. 2015; Debuse and Lawley 2016). Towards this aim, important factors in designing group activities include but are not limited to optimal group size (Scager, Boonstra et al. 2016; Francis, Henderson et al. 2018), member selection methods (Joshua & Mariajose 2013; Poelmans & Wessa 2015), proper scheduling

Figure 1. Collaborative learning spaces for facilitating group works