

Chapter 3

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

Mehrdad Arashpour
Monash University, Australia

Julia Lamborn
Monash University, Australia

Parisa Farzanehfard
University of Melbourne, Australia

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 work 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.

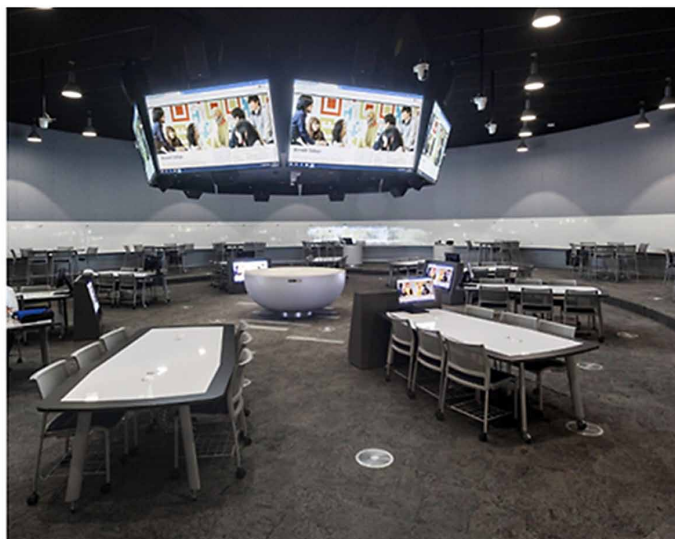
DOI: 10.4018/978-1-5225-8452-0.ch003

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; Debus 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



17 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/group-dynamics-in-higher-education/234859

Related Content

Smart Waste Management System

S. Umamaheswari (2019). *Big Data Analytics for Smart and Connected Cities* (pp. 229-242).

www.irma-international.org/chapter/smart-waste-management-system/211750

Passive Control Techniques and Their Applications in Historic Structures

Angeliki Papalou (2016). *Civil and Environmental Engineering: Concepts, Methodologies, Tools, and Applications* (pp. 836-862).

www.irma-international.org/chapter/passive-control-techniques-and-their-applications-in-historic-structures/144527

Risk Reduction in Natural Disaster Management through Information Systems: A Literature Review and an IS Design Science Research Agenda

Guido Schryenand Felix Wex (2015). *Transportation Systems and Engineering: Concepts, Methodologies, Tools, and Applications* (pp. 79-107).

www.irma-international.org/chapter/risk-reduction-in-natural-disaster-management-through-information-systems/128660

Fundamental Concepts of Strength of Materials

(2015). *Fracture and Damage Mechanics for Structural Engineering of Frames: State-of-the-Art Industrial Applications* (pp. 10-30).

www.irma-international.org/chapter/fundamental-concepts-of-strength-of-materials/124594

Assessing Human Reliability Behaviour from Use of Technology for Ships Navigating within Coastal Water

Oladokun Sulaiman Olanrewaju (2015). *Transportation Systems and Engineering: Concepts, Methodologies, Tools, and Applications* (pp. 1141-1153).

www.irma-international.org/chapter/assessing-human-reliability-behaviour-from-use-of-technology-for-ships-navigating-within-coastal-water/128717