


# Chapter 3

## The Impact of E–Collaboration and Traditional Learning Styles on Learning Outcomes and Anxiety

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### ABSTRACT

*Nowadays, information technologies are catching growing attention and their application to English language learning is also prospering. Using a Foreign Language Classroom Anxiety Scale and College English Test Band 4, this study explored the different impacts of e-collaborative learning via QQ group and traditional multi-media learning on learning outcomes and anxiety among tertiary students. Around 70 participants were involved in different styles of learning and instruction and received both surveys and tests. The results showed that QQ group-based e-collaborative learning could significantly decrease anxiety but no significant gain was found in learning outcomes compared with traditional multi-media learning. Correlation between learning outcomes and anxiety was also studied, which resulted in no significant findings. Both disadvantages and advantages of this study were discussed, and future research was recommended as well.*

### INTRODUCTION

Numerous scholars have been committed to online technology assisted learning and teaching (e.g. Yu, Zhu, Yang, & Chen, 2018; Yu, 2018abcd; Yu, 2019ab). QQ is one of the most popular online communicative tools in China. Users can invite friends who share common interests to communicate within one group. QQ group, an instant and heterochronous communication platform established by Tencent Company, to cater for requirements of users can function as a tool to share, store and transfer files, play

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collaborative online games, send and capture messages and pictures, share online music and videos, etc. In addition, Tencent also provides space services, where users can use Bulletin Board System (BBS), photo album, shared files and other means of communication. QQ groups are divided into different levels which can contain different numbers of users. For instance, an ordinary group can often contain 500 people while an advanced one can hold 1000. Users can also make full use of the group and develop e-collaborative learning.

Collaborative learning refers to the learning mode based on interaction among a team of students (Jaime, et al., 2013). The learners collaboratively share experiences playing certain roles and try to accomplish a common task or assignment interdependently (Dillenbourg, 1999; Szewkis et al., 2011). In order to realize e-collaborative learning, peers should share a common goal, conduct cooperatively, and communicate with each other, coupled with individual responsibility, awareness of common efforts and joint rewards (Szewkis et al., 2011). E-collaboration is also referred to as a collaborative activity that involves people from distant geographic locations working together via Internet tools and other resources (Harris, 1999). This activity is related to telecommuting and telework, a working style which is growingly popular, resulting from the fact that many organizations work on projects at various locations and require virtual teams of dispersed members (Cox, 2009). E-collaboration can realize learning or working at different locations and hours. These virtual teams predominantly use information technology tools for coordination and communication (Cramton & Webber, 2005; González-Navarro, Orengo, Zornoza, Ripoll, & Peiró, 2010). Virtual teams offer many benefits to organizations, while at the same time they also present many challenges in the work process for team effectiveness and satisfaction (Szewkis et al., 2011).

## **LITERATURE REVIEW**

QQ group is featured as powerful instant messaging (IM), which consolidates collaborative learning. Farmer (2007) argued that IM was actively used by millions of people who were connected from anywhere such as home, office, mobile, providing increasing collaborative opportunities. IM supported learning could be especially placed in three contexts: workplace, school and home (Deng, 2008).

Numerous studies explored IM. Some studies (Klavins, 2005; Snyder and Field, 2006) addressed how to design an IM, while others focused on how teenagers used IM, (e.g. Ribak et al., 2002; Klavins, 2005; Snyder and Field, 2006) or the use of away messages (Baron et al., 2005). Grinter and Palen aimed to compare the similarities and differences of SMS and IM and the impact of communication technologies on the pursuit of independence (Grinter and Palen et al., 2006). Grinter and Palen (2002) found teenagers dealt with school work with the aid of IM. The frequency of using IM increased as they became more mature. But they did not provide details on how participants finished the assignment with the aid of IM. It could be generally acknowledged that IM, as a feature of QQ group, might facilitate e-collaborative learning.

Traditional learning is operationally defined as the learning style assisted with multi-media projector and blackboard in this study. Students and the teacher are situated in a classroom equipped with multimedia and blackboard, where the teacher presented language points, language notes, and anything related on a blackboard or a large computer screen. The teacher can also prepare slides for lectures and then play slide by slide in class. Students receive the information mainly through blackboard and computer

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