

# Chapter 11

## A Close Look at Online Collaboration: Conversational Structure in Chat and Its Implications for Group Work

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### EXECUTIVE SUMMARY

*This chapter employs a conversation analytic approach to the study of group interaction in synchronous chat. Chat has been used in educational settings as an adjunct to traditional face-to-face classes and as part of distance learning. This case study examines how chat was used for virtual team meetings by specifically focusing on the structural features of chat conversation as they relate to various aspects of online teamwork. Chat conversations are characterized by disrupted turn adjacency and multiple conversational threads, requiring participants to adapt different strategies to maintain coherence. The advantages and disadvantages of using chat for group work are discussed, and suggestions for implementing chat in education settings are presented.*

### BACKGROUND

Synchronous text-based interaction, where participants are logged in to the same virtual space at the same time, can be a useful tool for enhancing traditional classes or as part of an entirely online course. Synchronous chat, as it is also called, may not have always received the same amount of attention from educators and researchers as the various forms of asynchronous online discussion tools (Johnson, 2006), but research shows that chat can be used

to enhance learning outcomes. Some research has focused on comparing chat to face-to-face discussions. For example, Strømsø, Grøttum and Lycke (2007) examined the use of chat and face-to-face discussions in problem-based learning for medical students. They found more communication, in terms of more words and more and longer utterances, in the face-to-face setting. The chat discussions featured more social interaction and more technical talk, whereas there was more focus on the case study issues in the face-to-face discussions. They did find that the chat had more initiative turns, but that these were not elaborated on as much as in

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face-to-face. Cox, Carr and Hall (2004) compared the use of chat to face-to-face discussions in a blended course, and found that the students felt the chat discussions were empowering, although sometimes frustrating, and that the chat facilitated participation in the course by giving them greater confidence than they felt in face-to-face discussions. Similarly, the use of chat as an add-on to a compressed-schedule graduate seminar was found to be useful for bridging the gap between face-to-face sessions, helping students explore ideas, and facilitating a sense of community (Schwier & Balbar, 2002). Schwier and Balbar found that the chat conversations were dynamic and energizing, although they could also be frustrating due to the speed of the interaction, rapid topic decay, and occasional technical glitches.

Johnson (2006) reviewed the recent literature comparing synchronous and asynchronous computer-based discussion in educational settings. She found that overall research suggests that synchronous chat is a viable option in education, and that it can contribute to student motivation and skill development. Johnson also noted that synchronous chat was not necessarily better than asynchronous discussions in supporting learning outcomes, although the research she reviewed suggested that synchronous discussions will produce a greater total volume of communication. On the other hand, Repman, Zinskie and Carlson (2005) pointed out a number of advantages of chat over asynchronous tools as documented in the literature, including immediacy of communication, social relationship development, effective learner-learner and faculty-learner interaction, and more active involvement in learning. Synchronous discussions have also been found to exhibit higher levels of critical reflection when compared to asynchronous discussions (Levin, He, & Robbins, 2006). Paulus and Phipps (2008) found that the synchronous chat discussions they studied contained more asking, answering, challenging and responding moves than the asynchronous discussions, although in their study both modes contained reflection moves

in the discussion. They also note that student groups reported more technical and coherence problems with the chat environment. Discussion dynamics in synchronous and asynchronous computer-mediated communication (CMC) can also vary in mixed instructor-student groups. Yukselturk and Top (2006) found that in the asynchronous mode, participants tended to ask more questions and instructors answered, whereas in the chat discussions questions were mainly asked by instructors and answered by participants. They also found differences in the levels of socio-emotional content, with asynchronous discussions containing more positive socio-emotional messages and fewer negative socio-emotional messages than the chat discussions.

Sorg and McElhinney (2000), looking at the use of synchronous chat in an Internet-based course, found that the chat discussions contributed to the students' sense of empowerment and discovery. The students' positive associations with the chat environment were derived from the additional time they had for reflection and the feedback they received from peers. However, Sorg and McElhinney found that students also expressed frustration with the text-based interactions because of the lack of audio/visual cues and the instructor's moderation style. Participation in chat discussions in online classes has also been shown to be correlated with final grades (Wang, Newlin, & Tucker, 2001), and can also support deep learning (Osman & Herring, 2007), although Osman and Herring also note that the effectiveness of chat in distance learning settings may be mitigated by language and cultural barriers.

Based on the research reviewed here, it is clear that synchronous chat discussions can enhance communication and learning outcomes in educational settings, although the specifics may vary based on the context of use. It is also important to note that there are several recurring issues in the research on chat in education, specifically student frustration with the medium due to variations in typing skills, speed of the conversation, and other

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