

Table 3 - Sample of Research Involving Interaction: Chapter 3 - Research on Online Learning

Topic: Interaction	Author	Description/Procedures	Results	Instructional Strategies/Activities Suggested by Study
Type of Interactions in Asynchronous/Synchronous Communication	Pena, Schaff, Martin & Gay (2001)	<ul style="list-style-type: none"> ▪ Qualitative case study ▪ 24 graduate & undergraduate students ▪ Combination of asynchronous bulletin board system, and synchronous IRC ▪ Participating in 14-week communications course examining interaction through participation, flow of interaction, character of dialogue 	<ul style="list-style-type: none"> ▪ Asynchronous communication was more formal in nature, task-related, self-reflective and subjective ▪ Synchronous communication was more interactive, less task-oriented. ▪ Interactive messages contained questions, answers, support, clarification, consensus and social responses 	<ul style="list-style-type: none"> ▪ Use asynchronous conferencing for reflective activities including self questioning and rationalization ▪ Synchronous activities are appropriate for social, brainstorming communication but not for building arguments and consensus.
Factors Influencing Interaction in Online Courses	Vrasidas & McIsaac (1999)	<ul style="list-style-type: none"> ▪ Interpretive pilot study examining conceptual framework of interaction in an online course ▪ 7 graduate students ▪ First Class conferencing software and complementary Website ▪ First five weeks face to face, remainder of course alternating weeks of online and face to face communication 	<ul style="list-style-type: none"> ▪ In course structure, required activities led to more interaction while the heavy workload led to less interaction. ▪ Students' need for interaction (socializing, learning and discussion) was met through face-to-face interaction -- a part from the asynchronous discussion. ▪ Small class size impacted interaction with two students moderating and 5 students participating in discussion. ▪ Students felt asynchronous discussions were busywork, duplicating assignments and that they did not receive adequate feedback from their teacher or peers in the online discussion part of course. ▪ Those with limited prior experience using CMC participated less and felt intimidated when others used emoticons 	<ul style="list-style-type: none"> ▪ Consider online course workload and structure of course; be careful not to duplicate assignments in face-to-face and asynchronous components of course. ▪ Face-to-face meetings may reduce need for online social interaction. ▪ Class size and adequate feedback mechanisms are important considerations in an online course ▪ Prior experience, practice and providing explanations for online communication conventions are important to prevent users from feeling overwhelmed and intimidated.

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Topic: Interaction	Author	Description/Procedures	Results	Instructional Strategies/Activities Suggested by Study
Student and Teacher Perception of Interaction in Online Courses	McIsaac, Blocher, Mahes & Vrasidas (1999)	<ul style="list-style-type: none"> ▪ Mixed qualitative and quantitative study ▪ Using First Class software ▪ Collected usage statistics, message logs, time spent offline and post-course interviews ▪ Involving doctoral students in six Web courses over two years ▪ Study incorporated views of interactivity from both instructor and student perspective 	<ul style="list-style-type: none"> ▪ Instructors feel they teach differently and spend more time on teaching in online context than traditional courses but that it is worthwhile ▪ Teachers feel they are more concerned about student participation in online environment and think the quality of interaction is better than in a traditional course ▪ Teacher style and background impact course structure, commitment & effectiveness ▪ Student interactions had specific purposes (getting help, sharing information, submitting homework, participating in discussion, socializing, etc.) ▪ Lack of immediate feedback contributed to feelings of isolation in students. 	<ul style="list-style-type: none"> ▪ eLearning courses can benefit independent, motivated learners, those who want an alternative to FTF instruction, and previously unserved populations. ▪ Instructors add credibility as coach or facilitator rather than imposing views in online courses ▪ Create an environment where learners can feel socially present, providing face-to-face opportunities before meeting online ▪ Group activities increased interactivity and they need to be deliberately designed ▪ Incorporate significant personalized, feedback to avoid student feelings of isolation
Characteristics of Conference Interactions	Tsui & Ki (1996)	<ul style="list-style-type: none"> ▪ Longitudinal study over 16 months using quantitative methods and questionnaires ▪ First 8 months – 144 participant in-service English teachers in 15 schools, second 8 months – 333 participant teachers in 30 schools & 13 homes ▪ Using Lotus Notes software ▪ Analyzed message turns, different speech acts, categorized questions & sharing, tracked response patterns 	<ul style="list-style-type: none"> ▪ Initially more instructor/staff messages than teacher participants in first 8 months ▪ In second 8 months, significant increase in teacher participant messages and significant increase in amount of times responding to each other. ▪ When initiating interactions, teachers tended to ask questions rather than respond to others ▪ Teachers tended to share ideas more than ask questions 	<ul style="list-style-type: none"> ▪ Expect pattern of interaction with participants asking questions, instructor responding and acknowledging response, as well as sharing ideas. ▪ Expect peer communication and initiation of questions by participants to increase over time in online environment

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References:

- McIsaac, M. S., Blocher, J.M., Mahes, V. & Vrasidas, C. (1999). Student and teacher perceptions of interaction in online computer- mediated communication. *Educational Media International* 36(2),121-131.
- Pena-Shaff, J., Martin, W., & Gay, G. (2001). An epistemological framework for analyzing student interactions in computer-mediated communication environments. *Journal of Interactive Learning Research*, 12(1) 41-68.
- Tsui, A. Ki., W.W. (1996). An analysis of conference interactions on TeleNex - a computer network for ESL teachers. *Educational Technology Research and Development*, 44(4), 23-44.
- Vrasidas, C. McIsaac., M.S. (1999). Factors influencing interaction in an online course. In 1 (Ed.), *The American Journal of Distance Education* 13(3), 22-36.