

Table 2 - Sample of Research Involving Synchronous Computer Mediated Communication (CMC): Chapter 3 - Research on Online Learning

Topic: Synchronous CMC	Author	Description/Procedures	Results	Instructional Strategies/Activities Suggested by Study
Communication Conventions in Instructional Electronic Chats	Murphy & Collins (1998)	<ul style="list-style-type: none"> ▪ Content analysis ▪ Graduate students in five courses studying educational technology and distance education ▪ Used First Class software ▪ Analyzed synchronous chats lasting 90 minutes, transcripts of asynchronous communication about instructional electronic chats and pre-course surveys 	<ul style="list-style-type: none"> ▪ Students were responsible for majority of communication (71.2%) and instructor responsible for less than a third of the amount of communication (28.8%) ▪ Students recognized need to use a variety of conventions and protocols to reduce transactional distance ▪ Students used metaphors to create shared meanings ▪ Some students, particularly those from other countries or slow typists recognized the challenges of constant and rapid flow of text 	<ul style="list-style-type: none"> ▪ Clarify communication in providing guidance for online chats including techniques such as providing keyword descriptions or referents to topics discussed or referring to others by name or nickname ▪ Encourage the use of metaphor and explanation to create shared understandings and prevent misunderstandings ▪ Provide a safe and trusting learning environment for appropriate levels of disclosure to happen ▪ Recognize that non-native English speakers and slow typists may face increased challenges with synchronous environments
Synchronous & Asynchronous Communication	Sotillo (2000)	<ul style="list-style-type: none"> ▪ Discourse analysis ▪ 25 undergraduate students in English-as-a-Second Language (ESL) writing classes from six different countries ▪ Asynchronous conferencing and synchronous Internet Relay Chat (mIRC) were used ▪ Analyzed the complexity of writing in both synchronous and asynchronous communication in the course 	<ul style="list-style-type: none"> ▪ Different modes of CMC are quantitatively and qualitatively different ▪ Synchronous discussions are highly interactive and demonstrate more student control ▪ Asynchronous mode affords more complex language than synchronous and primarily demonstrated student responses to teacher requests 	<ul style="list-style-type: none"> ▪ Expect a decrease of teacher control in synchronous communication ▪ Use synchronous communication to encourage language fluency and student-initiated discussions on varied topics ▪ Asynchronous communication provides opportunities for lengthier, more complex discussion with greater accuracy in spelling and punctuation ▪ Use asynchronous communication when requiring students to respond to teacher questions or promote discussion based on student personal experiences

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Learner-Centered Synchronous Course	Chou (2001)	<ul style="list-style-type: none"> ▪ Formative evaluation ▪ Undergraduate and graduate students in online seminar addressing theories and applications of CMC ▪ WebCT conferencing, chat and synchronous tools such as CU-SeeMe, Netscape CoolTalk, ActiveWorlds, The Palace ▪ Two semesters of course analyzed using observer logs, self-evaluative CMC skill improvement & rating of CMC tools 	<ul style="list-style-type: none"> ▪ Students with increased background in CMC demonstrated higher level of analysis and integration related to CMC tools ▪ Instructors activities and attitude were most important to encouraging students' participation ▪ Online chat most criticized technology in beginning of course, after guidelines were provided and small groups established chat was more focused and organized ▪ Students initially complained about WebCT system but at end of course rated it highly ▪ Systems that received high ratings in social presence also received high ratings in communication effectiveness and interface 	<ul style="list-style-type: none"> ▪ Instructors should provide continuous guidance and support be responsive, provide individual, one-to-one coaching, demonstrate concern for student progress, clarify instruction at all times, demonstrate positive attitude and good rapport with students, be accessibility, provide immediate feedback & explanation of class policy and criteria ▪ Guidelines and small groups are needed for online chat sessions ▪ Provide time for the adoption of a new instructional system by students

References:

Chou, C. C. (2001). Formative evaluation of synchronous CMC systems for a learner-centered online course. *Journal of Interactive Learning Research* 12(3/4), 173-192.

Murphy, K. L., & Collins, M. (1998). Development of communication conventions in instructional electronic chats. *Journal of distance education*, (1/2) 177-200: #142.

Sotillo, S. M. (2000). Discourse functions and syntactic complexity in asynchronous communication. *Language Learning and Technology*, 4(1), 82-119.