Chapter 1
Principles and Guidelines for Task Design in CMC Learning

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ABSTRACT
The goal of this chapter is to describe principles and guidelines that are to serve course designers and materials developers as a guide to task design in computer-mediated communication (CMC) learning environments. Drawing on cognitive and sociocultural perspectives, it argues that in task design it is imperative to bring into alignment a range of factors, such as the linguistic and cognitive complexity of the content, goals and outcome, processing conditions, and number of participants, in order to maximize targeted outcomes. The chapter is divided into three sections: First, a brief overview of theoretical perspectives and different design variables is provided. Second, different guidelines that are based on current research on CMC task effects are discussed. Last, the chapter concludes in the appendix with the description of rationales and procedures for 11 different task configurations that are to serve as prototypes and illustrate how task effects can be maximized in CMC-based online language learning.

INTRODUCTION
In the last decade, a steady increase in the use of the Internet for language teaching and learning has led researchers to investigate the effects of a range of different task designs which can be implemented in that medium. One type of activity that has received much attention in particular is computer-mediated communication (CMC). This should be no great surprise, as CMC has become a well-established form of online communication. As such, CMC emphasizes interaction among learners, which is seen as a fundamental component for second language acquisition. While research informs us on the effects of a variety of particular task types, the findings from such research allow us to

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extrapolate information regarding the design and effects of similar task types. What is not always obvious, however, is how and to what degree tasks impact learner behavior and learning, in particular, if one or more task variables are modified or variables are combined in different ways. Hence, when designing tasks it is imperative to take into account a range of factors, such as the linguistic and cognitive complexity of the content, the goal and outcome that learners are to achieve, the processing condition under which students operate, and also whether learners interact with one or multiple partners. Only by bringing different design variables into alignment, targeted learner outcomes can be optimized. Regarding task design for CMC-based learning environments, questions that arise are: How do different task types such as jigsaws, decision-making, or open-ended designs affect learner performance? What are the effects, if the mode of interaction is switched from a synchronous to an asynchronous environment? What is the impact, if students interact in dyads or in larger groups? Moreover, how does the contextual support of a task (e.g., the use of images or texts, whether a task is structured or unstructured) influence learner performance?

Aiming at course designers and materials developers, the purpose of this article is threefold: 1. I will provide a brief overview of theoretical perspectives and different design variables underlying research in CMC. 2. Drawing on current research on CMC tasks, I will present different guidelines that are to aid in understanding task effects and designing tasks in CMC environments. 3. I will describe the rationales and procedures for 11 different task configurations that are to serve as prototypes and illustrate how task effects can be optimized in CMC-based online language learning.

THEORETICAL PERSPECTIVES TO RESEARCH IN CMC-BASED LEARNING

Research claims that task-based instruction is conducive to second language learning. In particular, the following theoretical perspectives are believed to contribute to its effectiveness. These include: the interaction perspective, the sociocultural perspective, the output perspective, and the cognitive perspective.

The Interaction Hypothesis

The questions ‘what drives interactions and negotiations’, and ‘what task types yield the highest language output among learners’ have received the most attention in research on CMC. This is no surprise, as answers to these questions touch the core of the Interaction Hypothesis (Long, 1983), which claims that meaningful negotiations among learners are conducive to SLA. The basis for this research has its roots in the interactionist theory which “views language learning as an outcome of participating in discourse, in particular face-to-face interaction” (Ellis, 2003, p. 78). The underlying hypothesis for this theory is that if learners are given opportunities to negotiate meaning, learners will benefit in several principled ways (see Pica 1992, 1994). As Ellis (2003) points out, “there is considerable empirical support for the claim that negotiation facilitates comprehension” (p. 79). First, it helps learners to obtain comprehensible input. Second, as suggested by Pica (1992, 1994), negotiations provide learners with feedback on their own use of L2, assuming more competent speakers respond in meaningful ways to less competent speakers.

Despite its benefits, the Interaction Hypothesis is not without its controversies. Skehan and Foster (2001) have noted “learners are often able to overcome their communication problems without necessarily negotiating for meaning” (p. 187). For example, in CMC setups students may bypass the