Chapter 3
Metacognitive Development within the Community of Inquiry

Zehra Akyol
Independent Researcher, Canada

ABSTRACT
This chapter focuses on metacognition in relation to learning and cognition and discusses the potential of the Community of Inquiry (CoI) Framework to guide metacognitive development in online and blended learning environments. The commonality between metacognition and the community of inquiry is the interplay between internal knowledge construction and collaborative learning activities. In this regard, the CoI framework provides a model of cognition that operationalizes inquiry with the potential to contextualize and understand metacognition in an online learning environment. The metacognitive construct developed using the CoI framework as a theoretical lens is introduced, and the strategies and activities to support metacognition in a community of inquiry are provided.

INTRODUCTION
Knowing yourself is the beginning of all wisdom.
—Aristotle

Contemporary education aims to put the learner at the center of the learning process by recognizing and valuing the potential of the learner to construct knowledge. However, educational practices do not always reflect intended goals. As Garrison and Archer (2000) noted the incongruence between ideal educational outcomes and actual practices result in students’ uncritically assimilating teacher conveyed information rather than assuming responsibility for constructing meaningful and worthwhile knowledge. Certainly there are many contextual and systematic constraints behind this discrepancy. From the learner perspective, the transaction requires a significant role change. Being at the center of the learning process, students must accept increased responsibility for their own learning. The question is whether the students are ready for this transaction and whether the current approaches are really encouraging students to take the responsibility and control of their learning.
Taking responsibility for learning is not easy; in fact it can be an extremely challenging process. It requires a student to increase his/her awareness of self as a learner, to understand his/her mental world better. In other words, students need to improve their metacognitive knowledge and skills in order to maximize their potential to construct meaningful and worthwhile knowledge. It is believed and supported by research that the ability to monitor and control learning is crucial both for successful learning and learning how to learn (White, Frederikson & Collins, 2009). This chapter discusses the value of metacognition for learning and explores how a community of inquiry can support and sustain metacognitive development.

What is Metacognition?

Meta as a Greek word literally means “after,” “beyond”; in this regard metacognition is a cognition that comes after cognition and also, as Langford (1986) remarks, is presumably related to another cognition. Flavell (1979), one of the pioneers of research on metacognition describes metacognition as consisting of “knowledge or beliefs about what factors or variables act and interact in what ways to affect the course and outcome of cognitive enterprises” (p. 907). Even though there are many different definitions for metacognition, the general consensus is that a definition of metacognition should include: “knowledge of one’s knowledge, processes, and cognitive and affective states; and the ability to consciously and deliberately monitor and regulate one’s knowledge, processes and cognitive and affective states” (Hacker, 1998, p.11).

In order to better understand metacognition and the relationship between metacognition and cognition, we must begin with an understanding of cognition. According to Langford (1986), cognition is a belief, and a belief about a belief is an example of metacognition; this is called a meta-belief. Langford argues that “whenever a belief is expressed, the person expressing it possesses a corresponding meta-belief, whether it is expressed or not… and whenever a belief could be expressed by its possessor, whether it is expressed or not, a corresponding meta-belief exists” (p.20). Similarly, it could be said that cognition is a precondition for metacognition and creates the content of metacognition. On the other hand, metacognition is vital to cognition. It plays a critical role in various types of cognitive activity such as communication of information, comprehension, memory or problem solving. Metacognition could be considered as the surveillance of cognition since metacognitive processes are internal executive processes that supervise and control cognitive processes (Gourgey, 2001). According to Necka and Orzechowski (2005), cognition refers to regular information processing which is directly responsible for the execution of a cognitive task, whereas “metacognition enables that cognitive processes are executed in the appropriate order and according to some superordinate rules” (p.131). Cognitive strategies enable one to make progress whereas metacognitive strategies enable one to monitor and improve one’s progress through evaluating understanding, applying knowledge to new situations (Gourgey, 2001). However, even though the person is in general capable of having meta-beliefs, he may possess a belief without having possessing a corresponding meta-belief. A belief may be true or false; when it is a false belief, “the possessor of meta-beliefs therefore is not only in a good position to assess his beliefs but also has good reasons to do so” (Langford, 1986, p.25).

Another difference between metacognition and cognition is that metacognition is a broad concept relatively independent of subject areas and has broad applications across a number of different settings (e.g., education, law, cognitive psychology). Unlike cognitive skills, metacognitive skills span multiple domains. Schraw (2001) further explains that metacognition is more durable and general than domain specific cognitive skills. Hacker (1998) differentiates metacogni-