**Lecture notes - Metacognition**

An important purpose of higher education is that graduates are expected to develop more advanced, academic and independent ways of learning. The demands of the twenty-first century require students to know more than content knowledge; they must know how to learn. In this context professionals in education are increasingly acknowledging the importance of metacognition for learning.

Metacognition is awareness and control of one’s learning or the knowledge and thinking about one’s own or another’s thoughts, feeling, and values. It can be classified into two main components as “knowledge of cognition” and “regulation of cognition”.

* “Knowledge of cognition” refers to what individuals know about their own cognition or about cognition in general. It includes three different kinds of metacognitive awareness: declarative, procedural, and conditional knowledge.
* “Regulation of cognition” refers to a set of essential skills that help students control their learning. Essential skills included are planning, monitoring, and evaluation.

These two components of metacognition are related to one another and both components appear to span a wide variety of subject areas and domains – that is, they are domain-general in nature (Schraw, 1998).

Consequently metacognitive skills include taking conscious control of learning, planning, monitoring the progress of learning, identify personal strengths and weaknesses, and undertake appropriate remediation. Besides selecting strategies, analyzing the effectiveness of learning strategies, and changing learning behaviors and strategies when necessary (Dunlap, 2005; Turan, Demirel, & Sayek, 2009).

According to the previous research results, students who use metacognitive strategies are more academically successful than students who do not use these strategies. Moreover, students can be taught to improve metacognitive proficiency through repeated guided practice (Schellenberg, Negishi, & Eggen, 2011; Schraw, 1998). Teaching approaches using strategies which emphasise student metacognitive and self-regulated learning is among the most effective approaches (Zohara & Barzilaib, 2013).

Metacognition is a concept that attempts to capture the essence of adapting to change and uncertainty. Medical students must be prepared to cope with the uncertainty and evolving understanding inherent in medical practice. In medicine, metacognition can also be defined as checking the diagnostic thinking for possible bias, seeing the illness from patient’s perspective, or assessing what you need to know about a treatment option (Quirk, 2006).

Metacognition helps the student to learn in‑depth, remember the knowledge easily and to choose and use accurate strategies, in addition to realizing his/her strengths and weaknesses.