

Part Four

Perception, Cognition and Performance

The sensory systems provide information that is processed by higher brain areas to promote perceptual understanding of the world. An HMD “tricks” these perceptual processes by providing more information about the world than the sensory system normally has or by presenting the information in a different format. It is thus important to understand how the perceptual systems respond to these new kinds of sensory environments. Perceptual experiences also are interpreted and analyzed by higher-level systems that carry out a variety of cognitive tasks such as: attention, memory, recognition, language, decision-making and problem solving. It is important to understand how these cognitive systems operate, because they often depend on details of the perceptual and sensory information.

