



Peter Fadde

Training Expert Perceptual and Decision Skills in High-Speed Performance

The Technology

In performance areas ranging from sports to classroom teaching, experts are able to make extremely rapid and largely unconscious decisions in changing and uncertain environments. This apparently intuitive expertise is easily recognized and highly prized, but it is generally assumed to come only with innate talent or vast experience that “can’t be trained.” The theory of expertise-based training (XBT), however, maintains that the “situation awareness” and “pattern recognition” that underlie intuitive expertise can be targeted for training that focuses solely on the perceptual-cognitive components, separate from physical or mental execution of skills.

Dr. Fadde has developed training products based on XBT theory with immediate applications that can be delivered over the Internet or using laptop and tablet computers. Compared to simulator-based training, XBT offers cheap, easy, fast, and portable training for skills associated with the highest levels of expert performance in many domains.



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Dr. Peter Fadde is coordinator of the Learning Systems Design and Technology graduate program. Dr. Fadde is chair of the Technology, Instruction, Cognition, and Learning special interest group of the American Educational Research Association (AERA) and he has presented research at the MIT/Sloan Sports Analytics Conference and the Industry/Inter-agency Training, Simulation, and Education Conference (I/ITSEC). His research publications have focused on the training of expert performance in areas from sports to classroom teaching. Dr. Fadde consults on the development of sports training products based on his research.