



Orienteering As Cognition Training

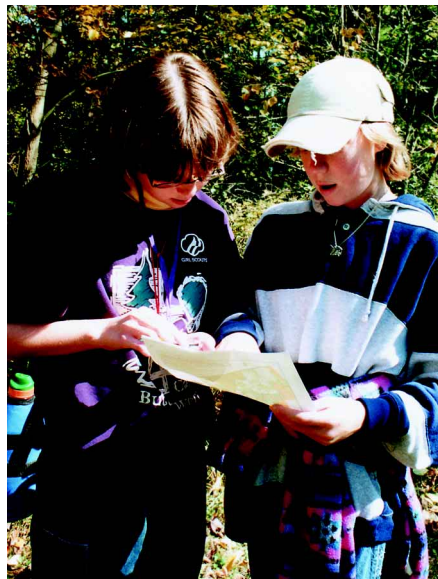
□ GREG SACK, OCIN

It is obvious that Orienteering is a great sport and belongs in any P.E. program. If you have read this column in the past, you would be aware that the sport has great crossover applicability. What few of us have recognized is its inherent reasoning stimulation capabilities.

We have all found ourselves out there, like D. Boone, not lost but mighty confused. Inevitably we talk to ourselves. This “self-talk” is the foundation of cognitive reasoning that is so essential to “higher order” thought processes.

Good orienteers talk to themselves. When we take new students out to learn about Orienteering, we normally start them in teams. This experience requires them to talk to each other and to plan together.

It is through this sharing of ideas that they automatically begin using cognitive reasoning. This is one of the reasons teamwork projects are so widely encouraged.



Camp Stonybrook Girl Scouts training program

Cognition Studies

In 1997, B. T. Johansen published “Thinking in Orienteering” in *Scientific Journal of Orienteering* (vol. 13, pp 38-46.) This paper is a study of how orienteers experience orienteering in order to describe various aspects of cognition in-

cluding thinking. In this study the methodological approach used was a so-called think-aloud technique.



To quote from the abstract “Results from the think-aloud protocols indicate that orienteers experience orienteering as a task to be accomplished. The experience of the task in orienteering elucidate that there is a physical movement to be made. During this movement orienteers seek a dynamical process in their running. . .

“Orienteering is pre-experienced by a period of map-reading. . . In this way, orienteers are able to harmonize or attune their perceptually experienced version of the terrain with the pre-experienced version. And with an overall sense of the task the orienteers are able, without hesitation, to perceive what actions to take for finding the controls.

“Therefore, the orienteers’ expectation or network of spatial and temporal relations is repeatedly delineated, revised, and maintained by thinking. Orienteers know what to look for during their physical movement through the terrain, and they know when, and even how to look for different details and structures.”

The runner is bringing the thought processes to the fore in order to manage them. The symbols on the map must be matched with previous experience in order to make a route selection. The features must be imagined, while recognizing the neces-

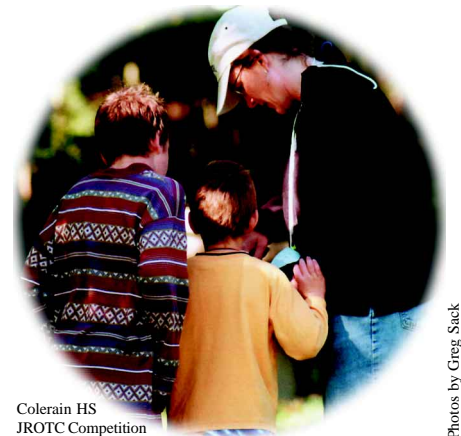
sity of adjustment and revision on the run.

Orienteering is physically a very demanding sport. However, to the extent that a comparison is meaningful, the cognitive demands may be even higher than the physical. Finding one’s way through unknown terrain with the help of only map and compass involves a number of processes that constitute aspects of cognition: planning, thinking, remembering, and recognition, to name but a few. Quite naturally, therefore, various aspects of cognition in orienteering have been the objects of a number of studies.

In T. Ottoson’s 1996 paper, “Cognition in Orienteering: Theoretical Perspectives and Methods of Study” published in *Scientific Journal of Orienteering* (Vol.12, pp 66-72) a review is made of the existing studies of cognition in orienteering. This review focuses on their theoretical foundations and the methodological approaches applied.

According to this study, from consulting the map, the orienteer develops a conception of how the structure of certain parts of the terrain will appear to him or her. This conception (preconceived, or “pre-experienced”) of the terrain (as depicted on the map) has to be harmonized with (attuned to) the conceived version of the terrain as perceptually experienced.”

When we develop students’ abilities in



Colerain HS JROTC Competition

Photos by Greg Sack

Orienteering, we can not but help to develop their cognitive reasoning abilities. It just takes caring and responsive coaching on our parts to encourage this self-aware thinking. □

