

Mark Merling

Opening Book

2) I tested creating a book using random samples, minimax, and alpha beta procedures. I used the same standard score heuristic. One thing that was confusing to me was that when I created the open book with random actions, I could see it getting larger. When I tried to use minimax or alpha beta I would consistently only get a few moves. I tried increasing the number of rounds all the way to 100,000, but still saw the same behavior. As such, it does not seem like my open book was that useful. I played 1000 games 4 times with no opening book against minimax, and 4 times with the opening book against minimax, and as can be seen below, didn't see any remarkable difference.

<u>No Open</u>		<u>With Open</u>
<u>Book</u>		<u>Book</u>
55.6		55.9
51.4		49.4
53		40.5
47		47
51.75		48.2