The time-to-market requirements are forcing companies and designers to review their tools and methodologies. In this paper we have implemented, from scratch, two MP3 hardware decoders using SystemC, one at the RTL level and the other at the Behavioral level. We have validated them using the ISO reference specification and synthesized using TSMC 0.13um technology. To accomplish that, we took 6 designers for 12 months in the RTL level and 1 designer for 3 months to make 14 design points in the Behavioral level. We have compared the results and showed that the better Behavioral design point is faster then the RTL design and uses almost the same area. The 14 design points were also analyzed in respect to area, power consumption, energy consumption and latency.