This paper presents a novel brain-computer interface (BCI) system that could potentially be used for enhancing the attention ability of subjects with attention deficit hyperactivity disorder (ADHD). It employs the steady state visual evoked potential (SSVEP) paradigm. The developed system consists of a 3D classroom environment with active 3D distractions and 2D games executed on the blackboard. The system is concealed as a game (with stages of varying difficulty) with an underlying story to motivate the subjects. It was tested on eleven healthy subjects and the results undeniably establish that by moving to a higher stage in the game where the 2D environment is changed to 3D along with the added 3D distractions, the difficulty level in keeping attention on the main task increases for the subjects. Results also show a mean accuracy of 92.26 ± 7.97% and a mean average selection time of 3.07 ± 1.09 seconds.