Concentration Building System for Children with Attention Deficit Hyperactivity Disorder

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Children with Attention-deficit hyperactivity disorder (ADHD) experience lack of concentration. In the learning process, the concentration power of the students with ADHD should be increased first. Concentration building systems for them are not available in the market. This paper proposes a concentration building system for children with ADHD. It consists of three modules - Bird chirping module, Fish tank module and Alphabet learning module. At first, the child is encouraged to press switch corresponding to birds chirping module; it soothes his hyperactive mind. This creates interest in pressing the switch related to next module, that is, fish tank module. The movement of different types of fishes makes the child stare deeply into the screen and can learn to count them. This activity based learning further improves his concentration power. The third one, Alphabet learning module can be further used to enhance his alphabet learning skills. Individual modules are developed using the microcontrollers MSP430G2553 and PIC16F877A. The proposed system improves the concentration power of the child which in turn improves his cognitive skills.