Developing an Edutainment Game for Children with ADHD Based on SAwD and VCIA Model

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Abstract : This paper analyzes how the Socially Aware Design (SAwD) and the Value-oriented and Culturally Informed Approach (VCIA) design model can be used to develop an edutainment game for children with Attention Deficit Hyperactivity Disorder (ADHD). The SAwD approach seeks a design that considers new dimensions in human-computer interaction, such as culture, aesthetics, emotional and social aspects of the user's everyday experience. From this perspective, the game development was VCIA model-based, including the users in the design process through participatory methodologies, considering their behavioral patterns, culture, and values. This is because values, beliefs, and behavioral patterns influence how technology is understood and used and the way it impacts people's lives. This model can be applied at different stages of design, which goes from explaining the problem and organizing the requirements to the evaluation of the prototype and the final solution. Thus, this paper aims to understand how this model can be used in the development of an edutainment game for children with ADHD. In the area of education and learning, children with ADHD have difficulties both in behavior and in school performance, as they are easily distracted, which is reflected both in classes and on tests. Therefore, they must perform tasks that are exciting or interesting for them, once the pleasure center in the brain is activated, it reinforces the center of attention, leaving the child more relaxed and focused. In this context, serious games have been used as part of the treatment of ADHD in children aiming to improve focus and attention, stimulate concentration, as well as be a tool for improving learning in areas such as math and reading, combining education and entertainment (edutainment). Thereby, as a result of the research, it was developed, in a participatory way, applying the VCIA model, an edutainment game prototype, for a mobile platform, for children between 8 and 12 years old.