

Abstract

A video game to support the diagnosis and treatment of attention deficit

Pablo Emmanuel Vázquez-Zapata^{1,*} and Alejandra Uc-Valladares¹

¹ Tecnológico Nacional de México/IT de Mérida, Departamento de Sistemas y Computación, Mérida, Mexico

* Correspondence: e18081135@itmerida.edu.mx

Abstract: Attention deficit is one of the main symptoms of ADHD. The origin of this disorder is not yet clear, but it can cause problems in different aspects of a person's life. The symptoms are sometimes confused with other disorders and it is more difficult to detect in adults than in children. Interviews and questionnaires are usually used to detect the symptoms of this disorder, however, these questionnaires can be affected by the person interviewed by altering their answers. Recent investigations have raised the use of video games as a tool for diagnosis and therapy of multiple conditions and the results of these investigations have promising results. It is because of this that the present work consists of the use of a serious video game to detect symptoms of attention deficit by providing results of the interactions that the user performs within the game. The game is a version of the ADHD diagnostic tool known as Go/No go. The methodology consists of determining a relationship between the Go/No go diagnostic test and the video game. The most reliable way to determine the relationship between two data sets is through machine learning techniques, which is why a neural network is developed for this purpose. By determining the relationship of the data obtained from the video game and the Go/No go, the video game can be established as a tool that allows the detection of attention deficit symptoms, being a powerful and available tool that has a similar performance to Go/No go task to determine these symptoms.

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References

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