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Efecto de diferentes modelos de entrenamiento sobre el rendimiento de las funciones ejecutivas de los niños.

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EFECTO DE DIFERENTES MODELOS DE ENTRENAMIENTO SOBRE EL RENDIMIENTO DE LAS FUNCIONES EJECUTIVAS DE LOS NIÑOS

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RESUMEN

Hace 15 años venimos utilizando la plataforma web de evaluación y entrenamiento cognitivo "Mate Marote" en niños de 4 a 8 años . En estudios piloto observamos que los niños son capaces de jugar correctamente niveles de dificultad que aumentan de forma progresiva rápidamente. En esta investigación nos proponemos contrastar dos modelos de entrenamiento cognitivo: uno con un estilo de progresión fija, en el que el nivel de dificultad aumenta, o disminuye, cada 3 ensayos correctos o incorrectos, respectivamente; y otro de progresión dinámica que se adapta rápidamente al nivel inicial de habilidad del jugador y, luego, desacelera su dificultad a medida que cada niña/o encuentra su punto de equilibrio. Nuestras principales hipótesis son que el rendimiento de funciones ejecutivas de los niños (1) será mayor en la postprueba en comparación con la preprueba; (2) será mayor para el grupo con el modelo de entrenamiento adaptativo dinámico en comparación con el grupo de entrenamiento fijo. Consideramos que los resultados de este estudio ayudarán a plantear entrenamientos motivantes que permitan adecuar, de forma dinámica, el nivel de dificultad de las tareas planteadas considerando las capacidades cognitivas de cada participante, logrando así mejores resultados.

Palabras clave

Entrenamiento Cognitivo - Funciones ejecutivas - Evaluaciones cognitivas - Progresión de dificultad

ABSTRACT

EFFECT OF DIFFERENT TRAINING MODELS ON CHILDREN'S EXECUTIVE FUNCTION PERFORMANCE

For the past 15 years, we have been using the cognitive evaluation and training web platform "Mate Marote" with children aged 4 to 8 years. In pilot studies, we observed that children are capable of correctly playing progressively increasing difficulty levels quickly. In this research, we aim to compare two cognitive training models: one with a fixed progression style, where the difficulty level increases or decreases every 3 correct or incorrect trials, respectively; and another with a dynamic progression that quickly adapts to the player's initial skill level and then slows the difficulty increase as each child finds their equilibrium point. Our main hypotheses are that the children's executive function performance (1) will be higher in the post-test compared to the pre-test; and (2) will be higher for the group with the adaptive dynamic training model compared to the fixed training group. We believe that the results of this study will help design motivating training programs that dynamically adjust the difficulty level of the tasks based on each participant's cognitive abilities, thereby achieving better results.

Keywords

Cognitive training - Executive functions - Cognitive assessments - Difficulty progression

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