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# EFFECTIVIDAD Y GENERALIZACIÓN DEL ENTRENAMIENTO DE LA MEMORIA DE TRABAJO Y ATENCIÓN: ESTADO DEL ARTE

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## Resumen

El entrenamiento cognitivo ha cobrado importancia, desarrollándose programas supuestamente efectivos en tratamientos de desórdenes atencionales y otros trastornos infantiles, y para el incremento de habilidades cognitivas en adultos. Objetivo: examinar la literatura reciente sobre la temática. Se consultaron las bases de DATOS EBSCO, APA, ERIC, Scielo, utilizando palabras claves: "cognitive training" y "working memory training" (inglés y español) de la última década. Fueron incluidos solamente artículos completos, y estudios experimentales o quasi-experimentales, con grupo control. Los estudios fueron clasificados según la población entrenada (niños, jóvenes y adultos mayores), según el uso del entrenamiento como estrategia terapéutica y otros estudios con población saludable. Se analizó: a) diseño metodológico y uso/tipo de grupo control, b) validez y consistencia de tareas de entrenamiento, c) medidas de generalización, efectos inmediatos y a largo plazo, y d) teoría de los procesos y tareas involucradas. Conclusión: los efectos de los entrenamientos son contradictorios y variables. En general se sostiene la efectividad a corto plazo sobre tareas similares a las entrenadas, pero estos cambios no se transfieren a otras habilidades cognitivas ni al desempeño en otras pruebas de la vida real. Se aportan líneas orientativas al diseño de estrategias basadas en modelos teóricos de los procesos involucrados.

## Palabras clave

Entrenamiento cognitivo, Memoria de Trabajo, Atención

## Abstract

### EFFECTIVENESS AND GENERALIZATION OF WORKING MEMORY AND ATTENTION TRAINING: A REVIEW

Recently, working memory and attention training programs have been suggested as effective treatments both for children, as for adults who want to improve their cognitive abilities. Objective: To examine the recent literature on this subject. Electronic Data Bases were consulted (EBSCO DATA, APA, ERIC, Scielo), using "cognitive training" and "working memory training" as key words (English and Spanish) 2000-2013. Full articles and experimental or quasi-experimental control group were included. These studies were classified by trained population (children, young adults and older adults), as well as the use of cognitive training as a therapeutic strategy in clinical samples and on healthy population. In each study: a) design methodology and use/type of control groups, b) validity and consistency of training tasks, c) generalization measures, immediate and long term effects, and d) theory of processes and tasks involved, were analyzed. Conclusions: current findings regarding to its effects appear to be contradictory and diverse. Most of the studies conclude that cognitive training produced reliable short-term improvements, but no evidence of the generalization of this training to other

cognitive skills or performance on other real life tasks was found. Guidelines for the design of strategies based on theoretical models of the processes involved are provided.

## Key words

Cognitive training, Working memory, Attention

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