

The Effect of Early Bilingualism on Executive Functions: A Training Study

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According to the bilingual cognitive advantage (BCA), bilinguals exhibit greater executive function (EF) abilities than their monolingual peers. Although this advantage has been reported in children as young as 6 months of age, many studies have failed to consistently replicate these results. Given that the current literature mainly uses correlational designs, the present study aims to determine whether teaching monolingual children a second language will lead to greater increases in EF than if taught new words in their native language. Two groups of 20 -to 27-month-old children are undergoing a 12-week online training program during which 9 translation equivalents (TEs; experimental condition) or 9 novel words in their native language (control condition) are taught weekly. Participants' EF is compared pre- and post-intervention using the Early Executive Functions Questionnaire, which assesses the four following scales; working memory (WM), flexibility (F), inhibitory control (IC), regulation, and the following factor: cognitive executive function (CEF, which loads onto WM, F, and IC). Word learning is assessed weekly with a forced choice task based on touch and at the final session for 25% of all words taught. Preliminary results (N=26) suggest that both groups were equivalent in age postintervention and EF abilities pre-intervention. In addition, results suggest that learning TEs and learning new words in one's native vocabulary are equally difficult. Results also suggest that CEF increased across time only in the experimental group and that F increased across time only in the control group. Thus, these preliminary results suggest that toddlers' acquisition of TEs benefit more EF abilities than acquiring new words in their native language.