The relation between executive functions and school performance in healthy adolescents

Citation for published version (APA):

Boschloo, A., Krabbendam, L., De Groot, R., & Jolles, J. (2012). The relation between executive functions and school performance in healthy adolescents. Abstract from Development of Executive Functions Workshop, Utrecht, Netherlands.

Document status and date:

Published: 02/07/2012

Document Version:

Peer reviewed version

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

Link to publication

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
 You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

https://www.ou.nl/taverne-agreement

Take down policy

If you believe that this document breaches copyright please contact us at:

pure-support@ou.nl

providing details and we will investigate your claim.

Downloaded from https://research.ou.nl/ on date: 15 Jul. 2023



The relation between executive functions and school performance in healthy adolescents

Annemarie Boschloo, Lydia Krabbendam, Renate de Groot, & Jelle Jolles

How well do executive function tests and questionnaires predict school performance in healthy adolescents? This was investigated in 173 healthy adolescents aged 12-18 years who study at pre-university education level (in Dutch: *vwo*). Executive functions were measured with the D-KEFS subtests Sorting Test and Tower Test, and with the BRIEF-SR. School performance was measured with end of term grades for Dutch, English and mathematics.

Results from regression analysis showed that executive function tests together predicted approximately 4% of variance in school grades after correction for grade and sex. Detailed analysis showed that the Tower Test predicted mathematics grades. The BRIEF-SR predicted Dutch grades for all adolescents, and English grades only for girls. The Sorting Test did not predict any grades.

This study shows that a) executive function tests predict only a small part of variance in school grades in healthy adolescents, and that b) not all executive function tests predict school grades equally well. This is important information for clinical neuropsychologists and school psychologists: in healthy adolescents, differences in school performance are mostly related to other factors than to differences in executive functions.