

## **Contents**

- 3 Testing psychometric properties of the CFT 1-R for students with special educational needs  
*Jörg-Henrik Heine, Markus Gebhard, Susanne Schwab, Phillip Neumann, Julia Gorges & Elke Wild*

### **Special Issue:**

#### **Rater effects: Advances in item response modeling of human ratings – Part II**

*Guest editor: Thomas Eckes*

- 29 Guest Editorial  
*Thomas Eckes*
- 33 A tale of two models: Psychometric and cognitive perspectives on rater-mediated assessments using accuracy ratings  
*George Engelhard, Jr, Jue Wang, & Stefanie A. Wind*
- 53 Modeling rater effects using a combination of Generalizability Theory and IRT  
*Jinnie Choi & Mark R. Wilson*
- 81 Comparison of human rater and automated scoring of test takers' speaking ability and classification using Item Response Theory  
*Zhen Wang & Yu Sun*
- 101 Item response models for human ratings: Overview, estimation methods, and implementation in R  
*Alexander Robitzsch & Jan Steinfeld*

# Psychological Test and Assessment Modeling (Psychol Test Assess Model)

formerly Psychologische Beiträge/Psychology Science *Quarterly*

Indexed in **Directory of Open Access Journals, PsycINFO, Psynex**

Self-evaluated impact factor (according to Kubinger, Heuberger & Poinstingl, 2010),  
2010: 0.565; 2011: 0.525; 2012: 0.783; 2013: 0.420; 2014: 0.354, 2015: 0.370, 2016: 0.400

## *Editor:*

Klaus D. Kubinger  
c/o Division for Assessment and  
Applied Psychometrics  
Faculty of Psychology  
University of Vienna  
Liebiggasse 5  
A-1010 Vienna (Austria)  
klaus.kubinger@univie.ac.at

## *Scientific Office Manager:*

Bettina Hagemüller  
p-t-a-m@univie.ac.at

## *Technical Support:*

Jan Steinfeld  
jan.steinfeld@univie.ac.at



PABST SCIENCE PUBLISHERS  
Eichengrund 28  
D-49525 Lengerich  
Tel. +49 (0) 5484 – 308  
Fax +49 (0) 5484 – 550  
Postgiro Kto. Köln 208157-503  
Internet: [www.pabst-publishers.com](http://www.pabst-publishers.com)  
[www.psychologie-aktuell.com](http://www.psychologie-aktuell.com)

Publishers Office: Silke Haarlammer  
haarlammer@pabst-publishers.com  
Producer: Armin Vahrenhorst  
vahrenhorst@pabst-publishers.com

Subscription price per year:  
(4 issues) 60,- EUR/USD, incl. postage and  
VAT, single copy 15,- EUR/USD, incl.  
postage and VAT.

ISSN 2190-0493 (Print)  
ISSN 2190-0507 (Internet)  
[www.psychological-test-and-assessment-modeling.com](http://www.psychological-test-and-assessment-modeling.com)

Picture on the front page:  
Josef Smoktun

## *Editorial board:*

David Andrich (AUS, Crawley)  
david.andrich@uwa.edu.au

Valentin Bucik (SLO, Ljubljana)  
tine.bucik@ff.uni-lj.si

Vesna Busko (HR, Zagreb)  
vbusko@ffzg.hr

Alison Ying Chen (USA, Notre Dame)  
ycheng4@nd.edu

Paul De Boeck (NL, Leuven)  
deboeck.2@osu.edu

Anastasia Efklides (GR, Thessaloniki)  
efklides@psy.auth.gr

Susan E. Embretson (USA, Atlanta)  
susan.embretson@psych.gatech.edu

Candan Ertubey (UK, Luton)  
candan.ertubey@luton.ac.uk

Andreas Frey (G, Jena)  
andreas.frey@uni-jena.de

Samuel Greiff (LUX, Luxembourg)  
samuel.greiff@uni.lu

Ron K. Hambleton (USA, Massachusetts)  
rkh@educ.umass.edu

Patrick C. Kyllonen (USA, Princeton)  
pkyllonen@ets.org

Geoff N. Masters (AUS, Victoria)  
masters@acer.edu.au

Deniz S. Ones (USA, Minneapolis)  
onesx001@tc.umn.edu

Tuulia Ortner (AUT, Salzburg)  
tuulia.ortner@sbg.ac.at

Marc Reckase, (USA, East Lansing)  
reckase@msu.edu

Jeanne A. Teresi (USA, New York)  
teresimeas@aol.com

Willibald Ruch (CH, Zürich)  
w.ruch@psychologie.uzh.ch

Fons J.R. van de Vijver (NL, Tilburg)  
fons.vandevijver@uvt.nl

Mark Wilson (USA, Berkeley)  
markw@calmail.berkeley.edu

Albert Ziegler (G, Erlangen-Nuremberg)  
albert.ziegler@fau.de