

## Assessment for growth: fostering student learning through assessment innovations in medical education

Wijk, E.V. van

### Citation

Wijk, E. V. van. (2025, November 19). Assessment for growth: fostering student learning through assessment innovations in medical education. Retrieved from https://hdl.handle.net/1887/4283162

Version: Publisher's Version

Licence agreement concerning inclusion of doctoral

License: thesis in the Institutional Repository of the University

of Leiden

Downloaded from: <a href="https://hdl.handle.net/1887/4283162">https://hdl.handle.net/1887/4283162</a>

**Note:** To cite this publication please use the final published version (if applicable).

# Assessment for growth

Fostering student learning through assessment innovations in medical education

#### Colophon

The research described in this thesis was conducted at the Center for Innovation in Medical Education of Leiden University Medical Center, Leiden, the Netherlands.

Financial support for printing of this thesis was kindly provided by Leiden University, the Dutch Association for Medical Education (NVMO), and Paragin.

Author Elise van Wijk
Cover design Eva Taylor Parkins

Layout Elise van Wijk, Eva Taylor Parkins, Isar de Boer

Printing Ridderprint | www.ridderprint.nl

Copyright © Elise V. van Wijk, 2025

All rights reserved. No part of this thesis may be reproduced, stored in a retrieval system or transmitted in any form or by any means without permission of the author.

# Assessment for growth

## Fostering student learning through assessment innovations in medical education

#### Proefschrift

ter verkrijging van de graad van doctor aan de Universiteit Leiden, op gezag van rector magnificus prof.dr.ir. H. Bijl, volgens besluit van het college voor promoties te verdedigen op woensdag 19 november 2025 klokke 14.30 uur

door

Elise Vivianne van Wijk

geboren te Delft in 1994 **Promotor** Prof. dr. A.M.J. Langers

Prof. dr. F.W. Dekker

**Copromotor** Dr. F.M. van Blankenstein

**Promotiecommissie** Prof. dr. P. Steendijk

Prof dr. L.W.T. Schuwirth, Flinders University

Prof. dr. M.F. van der Schaaf, University Medical Center Utrecht

Prof. dr. S. Heeneman, Maastricht University

Dr. M.O. de Jonge, Leiden University Graduate School of Teaching

"What is the fruit of these teachings? Only the most beautiful and proper harvest of the truly educated - tranquility, fearlessness, and freedom. We should not trust the masses who say only the free can be educated, but rather the lovers of wisdom who say that only the educated are free."

- Epictetus, discourses, 2.1.21-23a

### **Table of contents**

Chapter 1	General introduction	9
Part I: Very sh	ort answer question	
Chapter 2	Use of very short answer questions compared to multiple-choice questions in undergraduate medical students: An external validation study <i>PLoSONE</i> , 2023	21
Chapter 3	Identifying academic success and underperformance: The discriminative power of very short answer questions and multiple-choice questions Submitted	37
Chapter 4	The battle of question formats: A comparative study of retrieval practice using very short answer questions and multiple-choice questions  BMC Medical Education, 2024	53
Chapter 5	Bridging assessment and clinical practice: The added value of very short answer questions in medical education Submitted	77
Part II: Comp	uter adaptive progress testing	
Chapter 6	Computer adaptive vs. non-adaptive medical progress testing: Feasibility, test performance, and student experiences Perspectives on Medical Education, 2024	85
Chapter 7	The effect of the question mark option in progress testing: A large-scale longitudinal study Submitted	101

### Part III: Feedback

Chapter 8	Does 'summative' count? The influence of the awarding of study credits on feedback use and test-taking motivation in medical progress testing  Advances in Health Science Education, 2024	119
Chapter 9	Understanding students' feedback use in medical progress testing: A qualitative interview study Medical Education, 2024	153
Chapter 10	General discussion	171
Appendices	Nederlandse samenvatting List of Scientific Contributions Curriculum Vitae Dankwoord	188 194 196 198