



Universiteit
Leiden
The Netherlands

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

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/4283162>

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**

Elise van Wijk

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 short answer question

Chapter 2	Use of very short answer questions compared to multiple-choice questions in undergraduate medical students: An external validation study <i>PLoS ONE, 2023</i>	21
Chapter 3	Identifying academic success and underperformance: The discriminative power of very short answer questions and multiple-choice questions <i>Submitted</i>	37
Chapter 4	The battle of question formats: A comparative study of retrieval practice using very short answer questions and multiple-choice questions <i>BMC Medical Education, 2024</i>	53
Chapter 5	Bridging assessment and clinical practice: The added value of very short answer questions in medical education <i>Submitted</i>	77

Part II: Computer adaptive progress testing

Chapter 6	Computer adaptive vs. non-adaptive medical progress testing: Feasibility, test performance, and student experiences <i>Perspectives on Medical Education, 2024</i>	85
Chapter 7	The effect of the question mark option in progress testing: A large-scale longitudinal study <i>Submitted</i>	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 <i>Advances in Health Science Education, 2024</i>	119
Chapter 9	Understanding students’ feedback use in medical progress testing: A qualitative interview study <i>Medical Education, 2024</i>	153
Chapter 10	General discussion	171
Appendices	Nederlandse samenvatting	188
	List of Scientific Contributions	194
	Curriculum Vitae	196
	Dankwoord	198