

University of Groningen

## Teacher professional learning through Lesson Study

Schipper, Tijmen Michiel

DOI:  
[10.33612/diss.98636764](https://doi.org/10.33612/diss.98636764)

**IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.**

*Document Version*  
Publisher's PDF, also known as Version of record

*Publication date:*  
2019

[Link to publication in University of Groningen/UMCG research database](#)

*Citation for published version (APA):*

Schipper, T. M. (2019). *Teacher professional learning through Lesson Study: an examination of Lesson Study in relation to adaptive teaching competence, teacher self-efficacy, and the school context*. Rijksuniversiteit Groningen. <https://doi.org/10.33612/diss.98636764>

### Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

### Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

*Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.*

# Teacher professional learning through Lesson Study

An examination of Lesson Study in relation to adaptive teaching competence, teacher self-efficacy, and the school context

Tijmen M. Schipper

© 2019 Tijmen M. Schipper

ISBN 978-94-034-1894-0 (printed version)

ISBN 978-94-034-1893-3 (electronic version)

Cover design: Elisa Calamita, [persoonlijkproefschrift.nl](http://persoonlijkproefschrift.nl)

Lay-out: Elisa Calamita, [persoonlijkproefschrift.nl](http://persoonlijkproefschrift.nl)

Printed by Ipskamp Printing, [proefschriften.net](http://proefschriften.net)

This research was supported by the Netherlands Organization for Scientific Research (NWO) under grant number: 023.005.105.

---

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronically, mechanically, by photo-copying, recording or otherwise, without the prior written permission of the author.



rijksuniversiteit  
 groningen

# **Teacher professional learning through Lesson Study**

An examination of Lesson Study in relation to adaptive teaching  
 competence, teacher self-efficacy, and the school context

## **Proefschrift**

ter verkrijging van de graad van doctor aan de  
 Rijksuniversiteit Groningen  
 op gezag van de  
 rector magnificus prof. dr. C. Wijmenga  
 en volgens besluit van het College voor Promoties.

De openbare verdediging zal plaatsvinden op

donderdag 7 november 2019 om 14.30 uur

door

**Tijmen Michiel Schipper**

geboren op 5 juli 1987  
 te Kampen

**Promotor**

Prof. dr. K. van Veen

**Copromotores**

Dr. S. de Vries

Dr. S.L. Goei

**Beoordelingscommissie**

Dr. E.P.W.A. Jansen

Prof. dr. W.R. van Joolingen

Prof. dr. J.D.H.M. Vermunt

## TABLE OF CONTENTS

---

<b>Chapter 1</b>	
General introduction	9
<b>Chapter 2</b>	
Professional growth in adaptive teaching competence as a result of Lesson Study	33
<b>Chapter 3</b>	
Developing teachers' self-efficacy and adaptive teaching behavior through Lesson Study	65
<b>Chapter 4</b>	
Becoming a more adaptive teacher through collaborating in Lesson Study? Examining the influence of Lesson Study on teachers' adaptive teaching practices in mainstream secondary education	89
<b>Chapter 5</b>	
Promoting a professional school culture through Lesson Study? An examination of school culture, school conditions, and teacher self-efficacy	119
<b>Chapter 6</b>	
General conclusion and discussion	143
<b>References</b>	166
<b>Appendices</b>	181
Samenvatting (Dutch summary)	204
Dankwoord (Acknowledgments)	220
About the author	224
List of publications	226

## LIST OF TABLES

---

### Chapter 1

<i>Table 1.</i>	Composition of included schools and teachers per study.	26
-----------------	---	----

### Chapter 2

<i>Table 1.</i>	Composition of school sample.	41
<i>Table 2.</i>	Sample descriptions.	42
<i>Table 3.</i>	Coding scheme.	45
<i>Table 4.</i>	Reported professional growth.	57

### Chapter 3

<i>Table 1.</i>	Sample descriptions (N = 48).	73
<i>Table 2.</i>	Composition of intervention group (n = 26).	74
<i>Table 3.</i>	TSE mean scores and standard deviations in pre-test and post-test.	78
<i>Table 4.</i>	ICALT mean scores and standard deviations in pre-test and post-test.	80
<i>Table 5.</i>	Pearson correlations among TSE and ICALT subscales.	83

### Chapter 4

<i>Table 1.</i>	Sample descriptions (N = 63).	98
<i>Table 2.</i>	School variations in the intervention group.	99
<i>Table 3.</i>	Selected teachers for post-test interviews.	101
<i>Table 4.</i>	ICALT domains with number of items, internal consistency- and ICC-values.	102
<i>Table 5.</i>	Extract of adaptive teaching items as part of the NRR observation instrument.	104
<i>Table 6.</i>	NRR categories with number of items, internal consistency- and ICC-values.	105
<i>Table 7.</i>	SRI categories in terms of lesson objectives.	106
<i>Table 8.</i>	SRI categories in terms of general teacher perceptions.	107
<i>Table 9.</i>	SRI categories in terms of perceived adaptive teaching in observed lesson.	108
<i>Table 10.</i>	Pre-test and post-test results for both the ICALT and NRR instruments.	109
<i>Table 11.</i>	Positive experiences of participating in Lesson Study.	112

### Chapter 5

<i>Table 1.</i>	Sample descriptions (N = 60).	130
<i>Table 2.</i>	Composition of intervention group (n = 37).	131
<i>Table 3.</i>	Subscales school as PLC scan.	132
<i>Table 4.</i>	Mean scores and standard deviations for professional school culture.	134

<i>Table 5.</i>	Mean scores and standard deviations for school contextual conditions.	135
<i>Table 6.</i>	Mean scores and standard deviations for teachers' self-efficacy.	135
<i>Table 7.</i>	Pearson correlations among school culture, school conditions, and self-efficacy.	136

## Appendix E

<i>Table 1.</i>	Data pattern suggesting a development in adaptive teaching skills.	196
<i>Table 2.</i>	Visualization of an increasing positive residual correlation item pair.	197
<i>Table 3.</i>	Output van der Ark's (2007) check.restscore method.	199
<i>Table 4.</i>	Output concurrent calibration of the NRR and ICALT instrument.	200

## LIST OF FIGURES

---

### Chapter 1

<i>Figure 1.</i>	Dutch LS model.	20
<i>Figure 2.</i>	Theoretical LS model.	24
<i>Figure 3.</i>	General overview of this dissertation.	28

### Chapter 2

<i>Figure 1.</i>	The Interconnected Model of (Teacher) Professional Growth.	39
<i>Figure 2.</i>	The IMTPG supplemented with the proportion of labelled cases.	48
<i>Figure 3.</i>	Adapted version of the Interconnected Model of (Teacher) Professional Growth	61

### Chapter 3

<i>Figure 1.</i>	Research design.	74
<i>Figure 2.</i>	Teacher pre-test and post-test levels of TSE by group.	79
<i>Figure 3.</i>	Teacher pre-test and post-test values of ICALT subscales by group.	81



