

# VU Research Portal

## Teaching about teaching geography

Blankman, M.C.M.

2016

### **document version**

Publisher's PDF, also known as Version of record

[Link to publication in VU Research Portal](#)

### **citation for published version (APA)**

Blankman, M. C. M. (2016). *Teaching about teaching geography: Developing primary student teachers' pedagogical content knowledge for the subject of geography Teaching about teaching geography.*

### **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 ?

### **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.

### **E-mail address:**

[vuresearchportal.ub@vu.nl](mailto:vuresearchportal.ub@vu.nl)

## Contents

<b>1. Introduction.....</b>	<b>11</b>
1.1. The key question of this thesis .....	12
1.2. Key concepts in this thesis .....	13
1.3. Research context and research questions.....	15
1.4. Outline of this thesis .....	18
<b>2. Primary teacher educators' perception of desired and achieved pedagogical content knowledge in geography education in primary teacher training ....</b>	<b>21</b>
2.1. Introduction.....	23
2.2. Theoretical background.....	25
2.2.1. PCK .....	25
2.2.2. PCK-G .....	26
2.3. Method .....	29
2.3.1. Design .....	29
2.3.2. Participants.....	29
2.3.3. Instruments and data collection .....	30
2.3.4. Analyses.....	31
2.4. Results.....	32
2.4.1. The desired and achieved levels of substantial knowledge .....	32
2.4.2. The desired and achieved levels of syntactic knowledge .....	32
2.4.3. The desired and achieved levels of beliefs about the subject of geography .....	34
2.4.4. Factors that may promote or impede achieving the desired level of PCK-G in initial teacher training in primary education .....	34
2.5. Conclusions and discussion.....	35
<b>3. Design and development of a geography curriculum for first-year primary student teachers .....</b>	<b>39</b>
3.1. Introduction.....	41
3.2. Theoretical background.....	41
3.3. Context of the study and research questions .....	44
3.4. Method .....	45
3.4.1. The design phase .....	46
3.4.2. The pilot phase .....	47
3.4.3. The implementation phase .....	48
3.5. Results.....	49
3.5.1. Design phase .....	49
3.5.2. Pilot phase.....	51
3.5.3. Implementation phase.....	54
3.6. Conclusion and discussion.....	55
<b>4. Learning to teach geography for primary education: results of an experimental programme.....</b>	<b>59</b>
4.1. Introduction.....	61
4.2. Theoretical Background.....	62
4.2.1. PCK .....	62
4.2.2. PCK-G: the integrated knowledge needed to teach geography .....	63
4.2.3. Teaching PCK-G in primary teacher training.....	65
4.2.4. Research question .....	67

4.3.	The intervention.....	67
4.3.1.	<i>The programme</i> .....	67
4.3.2.	<i>Preparation</i> .....	68
4.4.	Method .....	68
4.4.1.	<i>Design</i> .....	68
4.4.2.	<i>Instruments</i> .....	69
4.4.3.	<i>Participants</i> .....	72
4.4.4.	<i>Characteristics of the participating student teachers</i> .....	72
4.4.5.	<i>Data analysis</i> .....	72
4.5.	Results.....	74
4.5.1.	<i>The effects of the programme CTG on the PCK development</i> .....	74
4.5.2.	<i>The effects of the programme CTG on the development of Substantive and Syntactic knowledge in the short term measured by the Test Review Lesson Plans</i> .....	75
4.5.3.	<i>The effects of the programme CTG on the development of Substantive and Syntactic knowledge and Beliefs about the subject in the short and long term measured by the Test Own Lesson Design</i> 75	
4.6.	Conclusion and discussion.....	77
<b>5.</b>	<b>Learning experiences of primary student teachers in a geography programme</b>	<b>79</b>
5.1.	Introduction.....	81
5.2.	Method .....	84
5.2.1.	<i>Participants and data collection</i> .....	84
5.2.2.	<i>Instrument: Learner reports</i> .....	85
5.2.3.	<i>Coding labels and interrater reliability</i> .....	86
5.2.4.	<i>Analyses</i> .....	86
5.3.	Results.....	87
5.3.1.	<i>Acquired substantive, syntactic and self-knowledge experiences of student teachers</i>	87
5.3.2.	<i>Differences between teacher educators</i> .....	91
5.4.	Conclusion and discussion.....	92
<b>6.</b>	<b>Conclusions and discussion</b> .....	<b>95</b>
6.1.	Introduction.....	96
6.2.	Summary of main findings .....	97
6.3.	Theoretical and methodological contributions .....	100
6.3.1.	<i>PCK</i> .....	101
6.3.2.	<i>PCK-G</i> .....	101
6.3.3.	<i>Design principles for developing PCK-G</i> .....	102
6.3.4.	<i>Measuring PCK-G</i> .....	102
6.3.5.	<i>Measuring student-teachers' learning experiences regarding their PCK-G</i> .....	103
6.4.	Implications for educational practice and policy.....	103
6.5.	Limitations and future research.....	106
6.6.	Epilogue.....	107
	<b>References</b> .....	<b>109</b>
	<b>Summary Samenvatting Dankwoord</b> .....	<b>119</b>
	<b>Appendix</b> .....	<b>135</b>
	<b>Bijdrage van de promovendus per artikel</b> .....	<b>139</b>