

INTERNATIONAL APPROACHES
TO PROFESSIONAL DEVELOPMENT
FOR MATHEMATICS TEACHERS



Edited by
Nadine Bednarz
Dario Fiorentini
Rongjin Huang

University of Ottawa Press
542 King Edward Avenue
Ottawa, ON K1N 6N5
www.press.uottawa.ca



The University of Ottawa Press acknowledges with gratitude the support extended to its publishing list by Heritage Canada through its Book Publishing Industry Development Program, by the Canada Council for the Arts, by the Canadian Federation for the Humanities and Social Sciences through its Aid to Scholarly Publications Program, by the Social Sciences and Humanities Research Council of Canada, and by the University of Ottawa.

© University of Ottawa Press 2011
All rights reserved.

LIBRARY AND ARCHIVES CANADA CATALOGUING IN PUBLICATION

International approaches to professional development for
mathematics teachers / edited by Nadine Bednarz, Dario Fiorentini
and Rongjin Huang.

Includes bibliographical references and index.
ISBN 978-0-7766-0747-4

1. Mathematics--Study and teaching. 2. Mathematics teachers--Training of.
I. Bednarz, Nadine II. Fiorentini, Dario III. Huang, Rongjin

QA11.2.I58 2011

510.71

C2011-902965-0

Chapter 6

Dialogue among In-Service Teachers in an Internet-Based Mathematics Education Program¹

Mario Sánchez

Introduction

The mathematics education program of the Centro de Investigación en Ciencia Aplicada y Tecnología Avanzada del Instituto Politécnico Nacional (CICATA-IPN) in Mexico is an Internet-based program directed at in-service mathematics teachers in Latin American countries.² The program offers master's and PhD studies constituted by a number of different courses. Since the foundation of the program, these courses have been (re)designed based on the experiences, intuitions, and criteria of the different teacher educators in charge of them. In spite of this pragmatic design of the courses, in some cases teachers' engagement in group discussions and reflections positively affect their beliefs and attitudes about the teaching and learning of mathematics.

The aim of the study reported in this chapter was to evaluate, in a more theoretical way, what constitutes these fruitful interactions and the design factors that seem to act in favour of such interactions. The analysis reported here focused on a special design element called *note of reflection*, which has been included in different courses of the aforementioned program. I will describe the characteristics of this element later.

The data presented here were constituted by the interactions among a small group of in-service mathematics teachers while they were discussing one of the notes of reflection. Their interactions were analyzed using the concept of dialogue as it is developed in Alrø and Skovsmose (2002).