

## A Study About Mathematician Vocations In Primary School

Beatriz Álvarez Díaz <sup>1</sup>, Ixchel Dzohara Gutiérrez Rodríguez <sup>2</sup>,  
Rosalía Rodríguez-Gigirey Villar <sup>3</sup> and Marta Pérez Rodríguez <sup>4</sup>

<sup>1</sup> Dep. of Mathematics, University of Santiago de Compostela, E-15782 Santiago de Compostela, Spain.

<sup>2</sup> Dep. of Mathematics, University of Vigo, E-32004 Ourense, Spain.

<sup>3</sup> Dep. of Mathematics, University of Vigo, E-36005 Pontevedra, Spain.

### Abstract

In this work we present the results of an investigation to diagnose the issue of mathematical vocations in Primary Education, with special emphasis on girls in the third stage of Primary Education. The study uses a mixed and parallel focus qualitative and quantitative approximation on a sample of 172 girls and 168 boys between 9 and 12 years old from eight educational centers in the municipalities of Vigo and Pontevedra, Spain. The instruments used for data collection were a 28-question questionnaire, interviews and discussion groups on the perception, knowledge and assessment of different aspects related to the question of mathematical vocations and the importance of mathematics in life. We found that individuals recognize the usefulness and importance of mathematics, but not its realization in professional activity or in daily life, associating mathematics mainly with calculation. Moreover, there is a clear difference in self-concept in boys and girls with respect to mathematics, girls believe that they have more difficulties to work with the subject and they think that they are more difficult. Finally, a gender bias was found in the responses consistent with traditionally feminized professions. Furthermore, it was found that girls are more aware of the application of mathematics than boys and the need to develop activities that give visibility to the scientific-mathematical role is confirmed.

**Keywords:** educational practice, gender bias, gender perspective, mathematical-perception mathematical-role