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ALICANTE - BARCELONA - HELSINKI: STUDENTS' MATHEMATICAL BACKGROUND AND REQUIREMENTS TO ENTER A PRIMARY TEACHING DEGREE

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We situate our research among those studies that analyse the factors that influence the development of mathematical knowledge for teaching during initial teacher education. Some of these factors are the institutional characteristics and national context in which teacher education takes place, together with the individual characteristics of future teachers (Blömeke & Delaney, 2012). International studies in this area have tended to focus on the organization, curriculum, processes, and outcomes of training (Blömeke & Delaney, 2012; Li, 2012). However, little attention has been paid to the mathematical knowledge that students bring to teacher education programs as an individual characteristic that might influence their subsequent achievements.

We explore the interplay between the formal requirements that allow access to primary teaching programs in Finland and Spain and the prior mathematical knowledge that applicants bring with them. We use a test to compare the mathematical knowledge background of students entering primary teaching programs at the University of Alicante (ALI), University Autònoma of Barcelona (BCN), and University of Helsinki (HEL) (386, 254, and 116 participants respectively) in September 2016, before they had started any undergraduate mathematics or mathematics education courses.

Our main results were: a) overall, HEL students performed better than BCN students, who in turn performed better than ALI students; b) ALI and BCN students' answers to the various test questions followed a similar pattern, which differed from the pattern seen in HEL student responses; and c) when the admission criteria applied at HEL were superimposed on the data obtained in ALI and BCN, the apparent gaps between levels of performance narrowed significantly. At present there exist no studies demonstrating that students initiating a university degree are better prepared in Finland than in Spain. Our research suggests that the differences observed between ALI, BCN and HEL can be attributed to the access criteria and number of students admitted in the teaching programs in Finland and Spain.

References

Blömeke, S. & Delaney, S. (2012). Assessment of teacher knowledge across countries: a review of the state of research. *ZDM. Mathematics Education, 44*(3), 223-247.

Li, Y. (2012). Mathematics teacher preparation examined in an international context: learning from TEDS-M and beyond. *ZDM. Mathematics Education, 44*(3), 367-370.

2018. In E. Bergqvist, M. Österholm, C. Granberg, & L. Sumpter (Eds.). *Proceedings of the 42nd Conference of the International Group for the Psychology of Mathematics Education* (Vol. 5, p. 237). Umeå, Sweden: PME.