

FLEMISH AND SPANISH HIGH SCHOOL STUDENT'S MATHEMATICS-RELATED BELIEFS SYSTEMS: A COMPARATIVE STUDY

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Over the years there has been a growing body of research on students' beliefs and mathematical learning. Typically, however, scholars have been focussing on one or the other categorie od students'beliefs, e.g., motivational beliefs or beliefs about mathematics. Very few have analyzed the diferent kinds of beliefs in relation to each other, i.e. students' mathematics related beliefs systems. In this poster we will report a comparative study of Flemish and Spanish high school student's mathematics-related belief systems. Two research questions directed our investigation:

- Are Flemish and Spanish sudents' mathematics-related systems constitudes along the same dimensions or do they have a different structure?
- What are the mathematics-related beliefs of Flemish and Spanish junior high students and how do they relate to gender, achievement level and track level?

We did a survey in wich 379 Flemish and 279 Spanish students were administered the Mathematics-Related Beliefs Questionnaire (MRBQ) that measures four major components of students' mathematics-related belief systems: beliefs about the role and the functioning of the teacher, beliefs about the significance and competence in mathematics, beliefs about mathematics as a social activity, beliefs on mathematics as a domain of excellence (Op 't Eynde, De Corte & Verschaffel, in press and Gómez-Chacón, De Corte, Op 't Eynde, in press). Principal component analyses and variance analyses were performed to identify, respectively, the internal structure of students' mathematics-related belief systems in Flanders and Spain, and their relations with gender, achievement level, and track level. The results of the principal component analyses indicate tha students' mathematics related beliefs sytems in Flanders and Spain are characterized by similar dimensions, but also indicate tha not all of them are strutured identical. Variance analyses on the Flemish data pointed to an overall effect of the three independent variables. In Spain the relation betwee gender, achievement level, and track level appears to be more complicated.

References

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