Humour in Mathematics Teaching: A Study in Portugal and Spain

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21.1 Introduction

This chapter is based on a research study that focuses on the use of humour in the school context, inasmuch as the teaching of mathematics is concerned. The decision underlying our choice for this work scope rests upon the acknowledgement that positive and nonaggressive humour is a powerful
communicative tool, which is valued by most people, which boosts intelligence, once faced with unexpected problems and funny situations, and which creates environments where a good mood is prevalent, suitable for learning (Martin & Ford, 2018; Neumann et al., 2009; Pound & Lee, 2011). These components of humour make it especially meaningful in contexts where communication is a strong element, as in the classroom. Teaching and learning are based on communicative actions that can involve the use of humour with different intentions, such as triggering positive emotions that help to create favourable environments for learning, originating situations that foster cognition with regard to the understanding and memorisation of concepts and likely to bring about communicative interactions.

Throughout these last decades, studies have been carried out that seek to establish relationships between the use of humour by the teacher and student learning outcomes (Banas et al., 2011; Guitart, 2012; Vanderheiden, 2021). Most of these studies are of a quantitative nature, scarcely describing what type of humour is used or the way it is used (Banas et al., 2011). In these studies, one finds few analyses of what teachers think and do with humour to teach, especially with concern to the subject of mathematics, which is often thought to be a field with little room to include humorous messages that take advantage of polysemy, ambiguity, and exaggeration (Flores & Moreno, 2011; Pozsonyi & Soulstein, 2019). In view of this framework, it seemed appropriate to find out what is happening with mathematics teachers from Portugal and Spain, who despite being geographically close have different educational and training systems. This way, we study mathematics teachers of the two countries, who teach from primary to higher education, seeking an answer, globally and by countries, to the questions: (1) Do mathematics teachers consider they have a sense of humour? (2) What conception do they have of humour? (3) Do they consider humour is compatible with the teaching of mathematics? and (4) If teachers use humour in the teaching of mathematics, how do they use it and for what purpose?

### 21.2 Humour in Mathematics

In this section, we present the theoretical foundations of the study, organised in two parts: (1) perspectives on humour: from its origins to the present; and (2) humour, culture, and identity. In the first, we discuss the concept of humour and its development over time. In the second, we discuss the role of humour in communication and in mathematics teaching.