

## THEORETICAL FRAMEWORK

**Gender occupational segregation** becomes a key social problem when the disparity between men and women due to the lack of the latter ones in certain sectors such as the STEM occupations is one of the main factors to explain income and power inequality (Aguado Bloise et al., 2018; Ibáñez et al., 2017). On the one hand, women are not accessing a field with good job opportunities and, on the other hand, the SEAM industry will increasingly need specialists in these fields and is failing to attract half the population (Barnard et al., 2010).

There is **extensive literature** analysing this problem both internationally (Bridges, 2013; Cohen, 2013; Combet & Oesch, 2019; Farrell & McHugh, 2020; Hegewisch et al., 2010; Moss-Racusin et al., 2018; O'Brien et al., 2015) and in Spain (Comisión de Mujeres y Ciencia del CSIC, 2020; Del-Río & Alonso-Villar, 2015; Fernández Casado, 2017, 2018; López-Sancho, 2017; López Díaz & Santos del Cerro, 2015).

Research shows that the disparity in women's ratios in STEM careers **has its origin at a very young age**, given that even 6 year old girls show less confidence in their mathematical abilities than 6 year old boys (Bian et al., 2017). It is also worth noting that after choosing a formative itinerary it is very difficult to change the specialisation, some researchers even call adolescence as a "point of no return" when addressing occupational segregation (López-Sáez et al., 2011).

Keeping this in mind, trying to **generate pro-technological and pro-scientific attitudes** for girls during their childhood and adolescence is crucial to promote their access to STEM careers. The stereotype of a supposed technophobic attitude in women or the association of rational and scientific thinking with men are one of the most important barriers women have to overcome (Gill, 2014; Kelan, 2009). Violating this stereotypes can cause social penalizations (Burgess, 1999; Castaño Collado et al., 2008; Heilman et al., 2004) and it also leads to lower professional expectations for women in this fields (Chen & Moons, 2015).

However, gender stereotypes are built at this age thru the incorporation of other social positions and roles, mainly from parents, siblings, and other social links (Mead, 2001). This means that it is practically impossible to address the issue at hand without incorporating the social environment in which young boys and girls are growing, which explains our focus into working with families and parents.

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