

1116-97-1183

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*Emotional aspects of contending with mathematical challenges: The role of positive emotions.*

Mathematics has been perceived as a discipline centered on intellectuality, with only a minimal role attributed to emotions. Recent studies have found interaction between a variety of emotions and the quality of learning. In the present study, we focused on the characteristics of those who are willing to cope with mathematical challenges and on their emotions. The research was conducted among participants in the Israel International Math Competition for Girls (IIMCG). The IIMCG is a competition of problem-solving in mathematical thinking, and targets female high school students. The study participants were 12 competitors chosen from the 60 top-10 finalists in the IIMCG competitions held to date. Research instruments included an in-depth interview and a self-report instrument measuring interviewees' positive and negative emotions, expressed while coping with a mathematical challenge. The most prominent results indicated the intensity of the positive as opposed to the negative emotions. Among the positive emotions, determination and curiosity stood out and stressed the importance of the motivational aspect. The findings of this study stress the importance of positive emotions, which broaden the thought repertoire and are a key to flourishing. (Received September 17, 2015)