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Discursive positionings and emotions in modelling activities.

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Summary: Mathematical modelling is suggested as an activity through which students engage in meaningful mathematics. In the current research, the modelling activity of a group of four seventh-grade students was analysed using the discursive analysis framework. The research findings show that the positionings and emotions of the group members during their participation in the modelling activity changed as the activity proceeded. Overall, it can be said that three of the four group members acted as insiders, while the fourth acted as an outsider, and only, towards the end of the group's work on the activity, he acted as an insider. Moreover, the research findings point at four factors that affected the group members' positionings and emotions during the modelling activity: the member's characteristics, the member's history of learning experiences, the activity characteristics and the modelling phases. Furthermore, the different positionings of the group members in the different modelling phases were accompanied by different emotions experienced by them, where being an insider and a collaborator resulted in positive emotions, while being an outsider resulted in negative emotions.

Classification: C23 M13

Keywords: modelling; discursive; emotions; positionings; modelling activity; mathematical modelling; discursive positionings

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