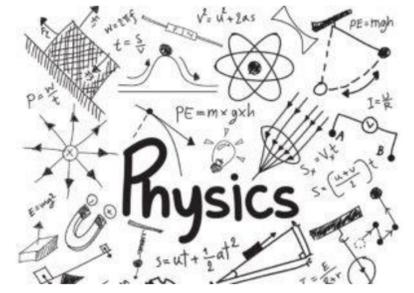




# Engagement for learning physics: a qualitative study of students' perspective

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## Introduction

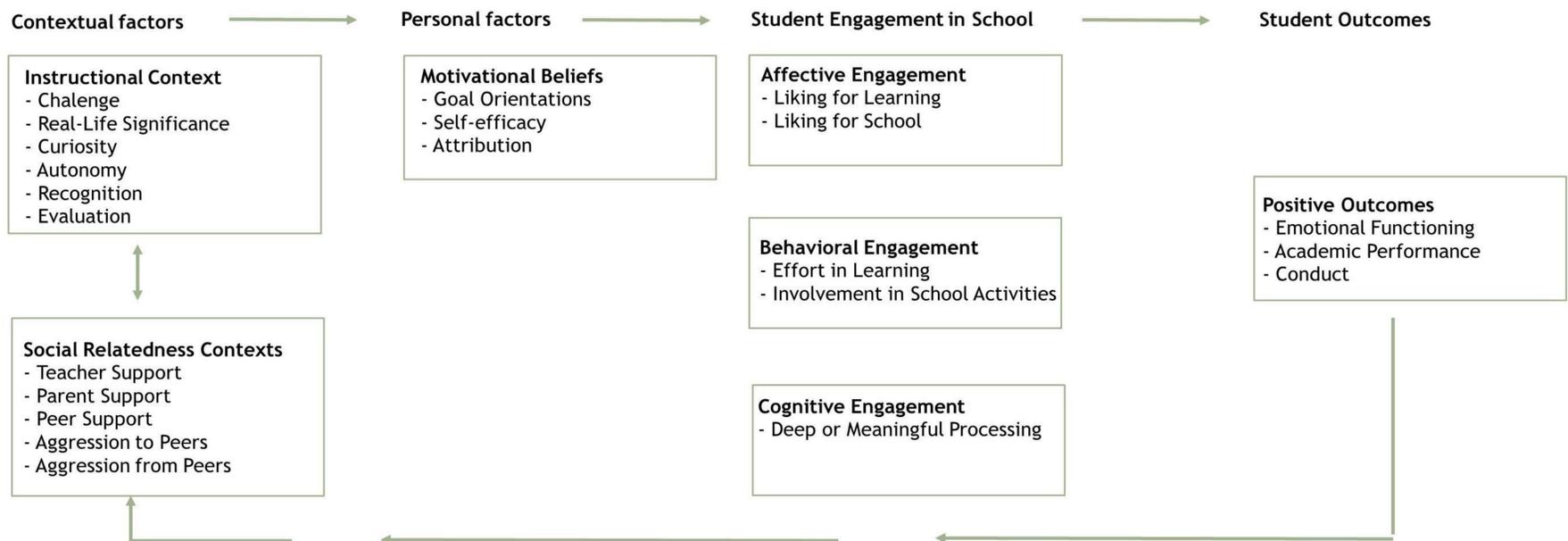
According to the **contextual model of student engagement** (Lam, Wong, Yang, & Liu, 2012) **contextual determinants** such as relationships with teachers, parents and students, and **individual determinants** such as student motivational beliefs shape the quality of student engagement. Physics is one of the subjects that includes content of different levels of abstraction and students experience learning activities in physics as interesting but at the same time difficult, so **students' perspective** could be very important for their engagement.

## Aim

The aim of this study was to examine **students' perspective on engagement**:

- how well eight graders can recognize the **determinants of engagement** in learning physics
- whether individual and contextual determinants of the engagement in learning physics differ between the students with **lower and higher achievement** in physics.

## Theoretical model - the contextual model for student engagement (Lam, Wong, Yang, & Liu, 2012)



## Methodology

Within the qualitative approach 4 **focus group interviews** were conducted with 8<sup>th</sup>-grade students from two elementary schools in Zagreb, Croatia. In each focus group 4-6 students participated. The students were nominated for different focus groups (**2 groups of more successful students** and **2 groups of less successful students**) by their physics teacher based on their achievement in physics. Group interviews included questions about the students' motivation, engagement and preferred approach to teaching and learning physics. Focus group interviews lasted 45-60 minutes. They were recorded and transcribed verbatim. The data was coded and analyzed within NVivo's software for qualitative research. Thematic analysis was performed.

## Results and discussion

### Main differences between more successful and less successful students

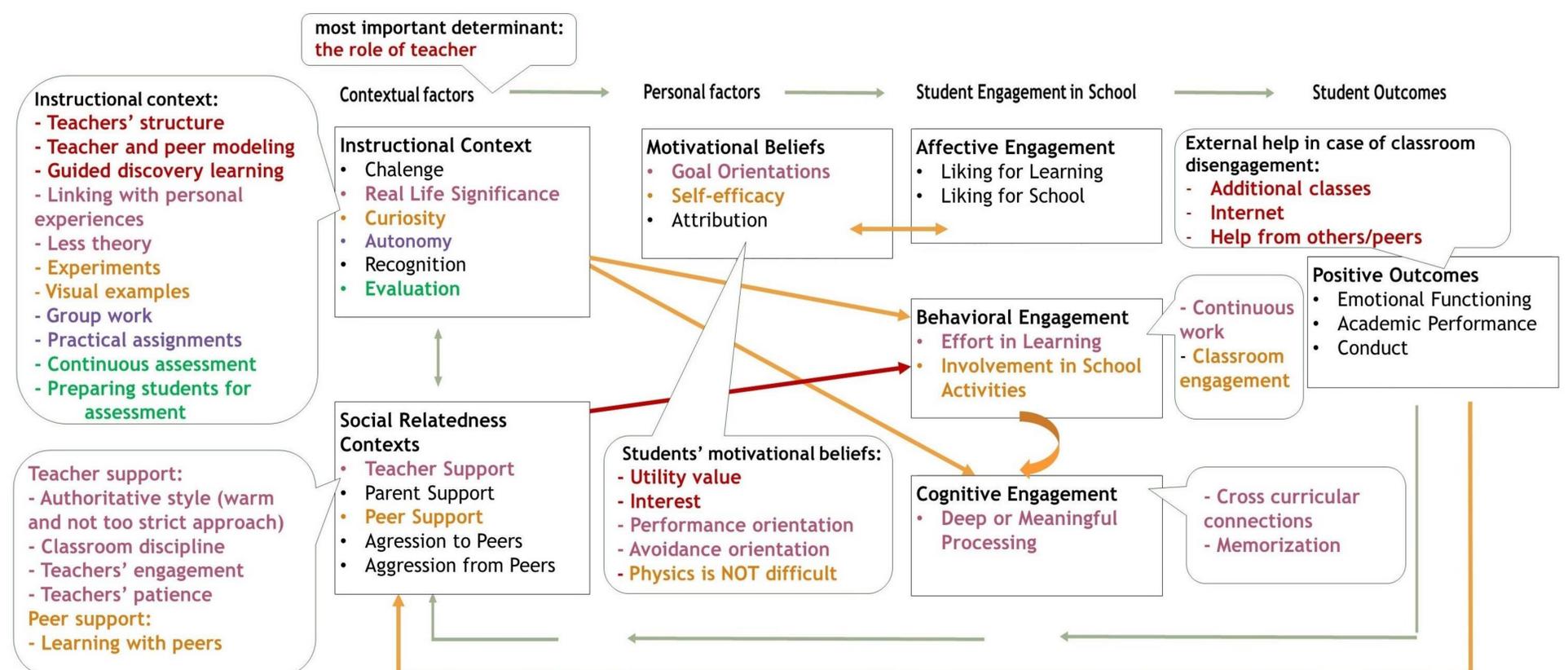
#### More successful students

- learn intensively during the physics classes
- understand easily the relationship between theory and problem solving
- recognize utility of learning physics

#### Less successful students

- do not always see the connection between theory and problems
- often memorize formulas so that they can apply them
- learn less during the physics classes and rely more on books and help from peers

## Students' perspective - the model for student engagement (Lam, Wong, Yang, & Liu, 2012) combined with results from our study



## References

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