# CHANGES IN ALMA'S ATTENTION TO CRITICAL EVENTS

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Teacher noticing – comprising of attending to, interpreting, and responding to students' mathematical thinking (Jacobs et al., 2010) – is one of the prominent frameworks used in pre-service mathematics teacher (PSTs) training programs. In many studies, the development of noticing skills is measured during the training period. To better understand how teachers learn to notice, this study explores changes in teachers' noticing skills from their training period to their time as novice teachers. Here, we focus on one teacher, Alma, and on the attention component, on which interpreting and responding rely. Alma participated in a large teacher training research program that used critical events to teach *teacher noticing.* We define *critical events* as moments in which the students thinking becomes apparent and can serve as an opportunity for the teacher to delve into the mathematics. We aim here to *characterize Alma's changes in attending to critical events by comparing events she identified during her training and those brought by her as a novice teacher.*

When collecting the data, we asked Alma to identify critical events from classroom observations during the program (2016-2017; 4 events) and in her first year of teaching (2017-2018; 3 events). Alma submitted the events' descriptions in reports according to a structured framework. Data analysis incorporated a three-axis model to characterize the events through different aspects (Rotem & Ayalon, under revision): participants (students, teacher, teacher and students), content (mathematics, pedagogy, both), and dimensions in learning and teaching (cognitive, affective and social). Whereas during her training period, Alma's critical events varied and characterized by multiple aspects, during her first year of teaching, Alma's events focused on specific characteristics, meaning students' mathematics, her teaching strategies, and social aspects. Her concentration on particular type of critical events provides us with insights into a teacher's process of becoming a teacher in real classrooms. In the presentation, we will elaborate more about how we gained these results using the model and discuss further implications.

## References

Jacobs, V. R., Lamb, L. L., & Philipp, R. A. (2010). Professional noticing of children's mathematical thinking. *Journal for Research in Mathematics Education, 41*(2), 169-202.

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