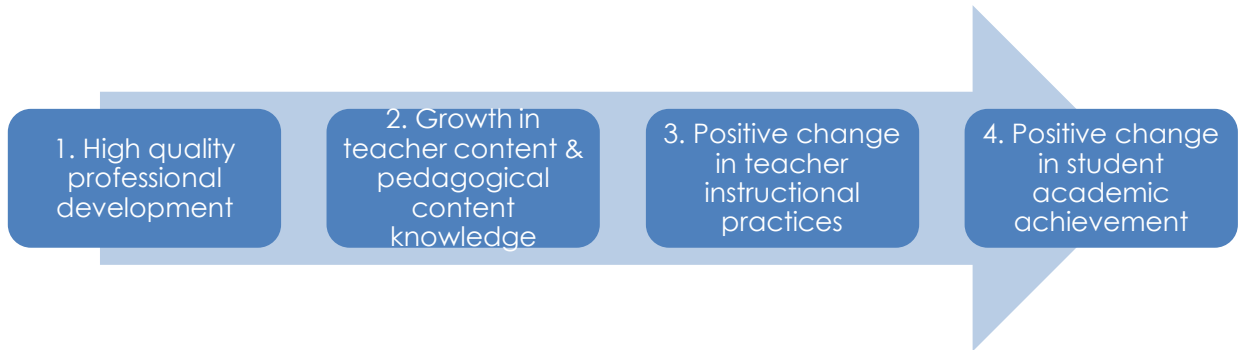


Summary

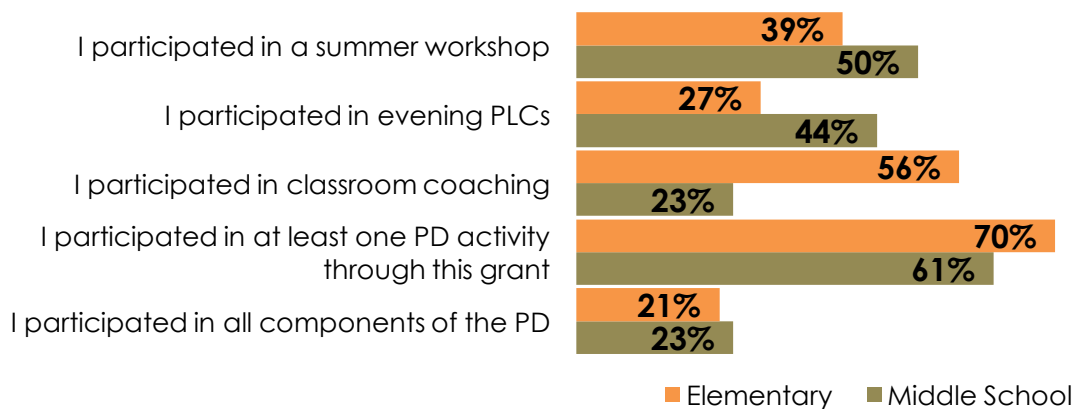
This summary examines some of the changes that have occurred in knowledge, attitudes, and behaviors related to teaching mathematics and language arts, which may potentially be impacted by the professional development provided through the grant. Typically, in the first year of implementing professional development, shifts are seen in teacher content and pedagogical content knowledge, with instructional changes following in year 2, and student academic achievement changes reflected in years 3-5. Data presented in this report align to the theory of change as shown in the graphic, and key findings for each relevant evaluation question are highlighted below.



1. To what degree did teachers participated in high quality professional development?

The professional development model chosen was research-based, shown to have positive impact on student achievement in similar school districts when fully implemented. The model requires teachers to participate in a summer workshop, evening professional learning communities, and classroom coaching. A higher percentage of elementary teachers participated in at least one component of the professional development, but a higher percentage of middle school teachers were engaged in all aspects of the initiative. Half of the middle school teachers were also engaged in the fundamental summer workshop, even if they did not participate in other components.

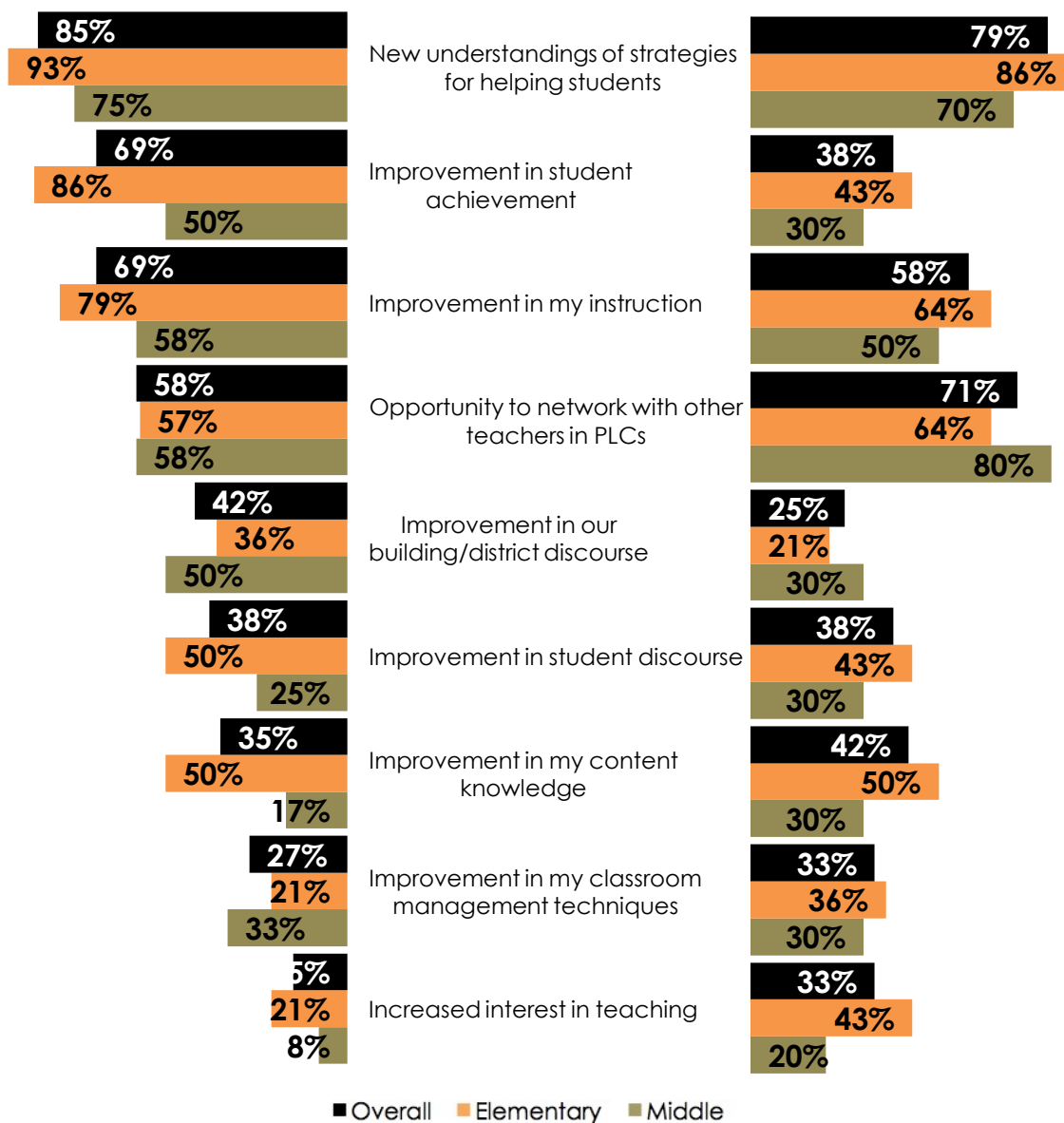
To what extent did you participate in the professional development?



2. What was the impact of the professional development on teacher pedagogical content knowledge and attitudes?

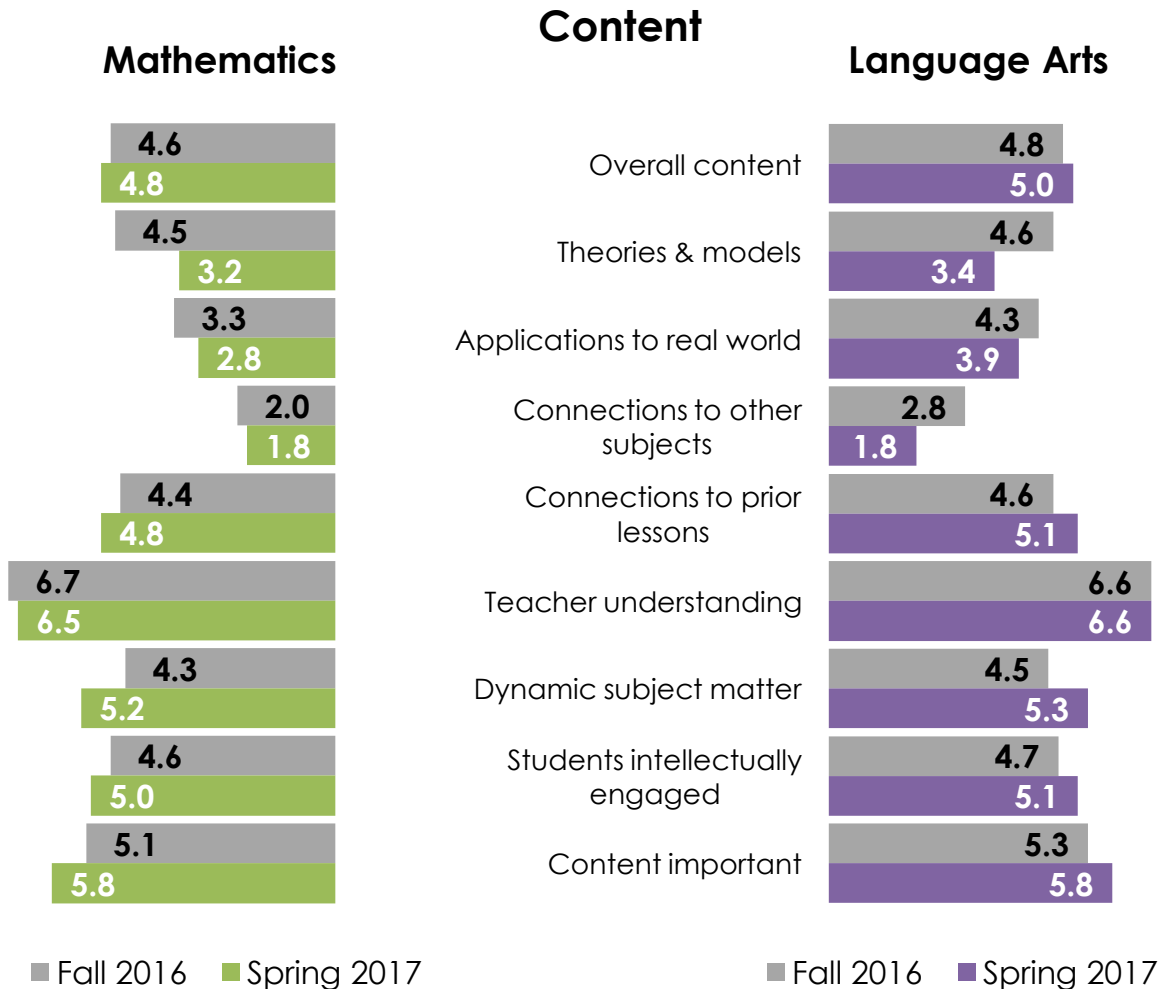
At the elementary level, the change between expectation and perceived reality varied across all categories with less improvement than expected in student achievement and instruction and more improvement than expected in increased interest in teaching. At the middle school level, there was less improvement in a majority of the categories than expected, including student achievement and building/district discourse while there was more improvement in opportunity to network in professional learning environments than anticipated.

What **did you expect to (left side, pre)** or **did you (right side, post)** gain from participating in this professional development? (by grade span)



3. What was the impact of the development on classroom instruction?

For the content measures below, the lowest measures were connections to other subjects (rated 2.8 out of 7 in the fall and 1.8 in the spring) followed by application to the real world (4.3 out of 7 in the fall and 3.9 in the spring). For the most part, the observed lessons did not make explicit connections to the real world or to other subjects. Teachers showed high understanding of the content in both observations, both of which were rated 6.6 out of 7. Teachers increased the most in their portrayal of subject matter being dynamic (4.5 out of 7 in the fall to 5.3 in the spring). Students were observed to be more intellectually engaged and teachers made more explicit connections to prior lessons in the spring observations.



4. What was the impact of the program on student academic achievement?

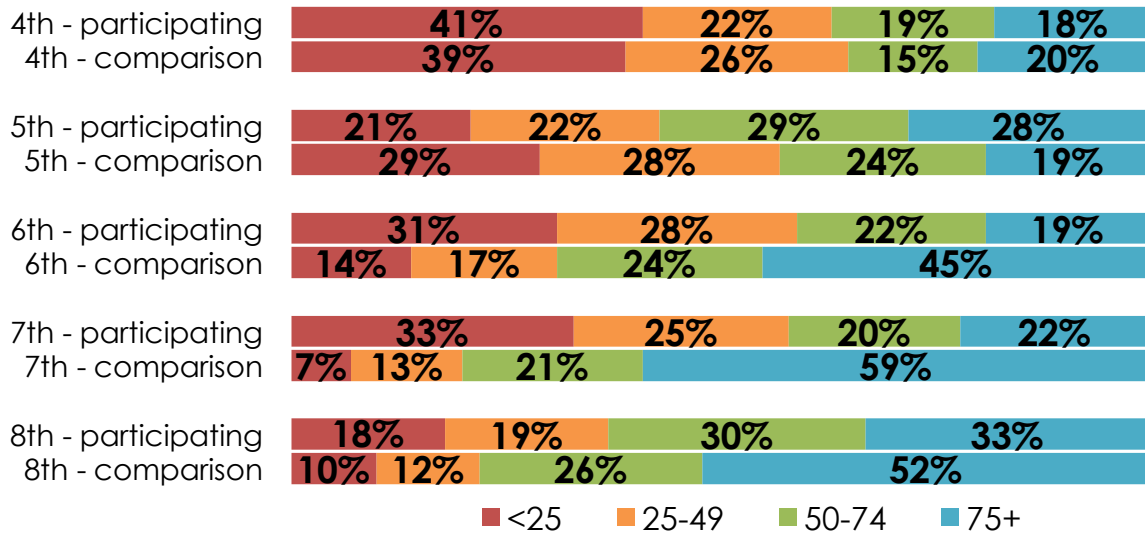
Findings about the impact of the teacher professional development on student academic achievement after one full year of implementation cannot be generalizable because they are not consistent across all schools and grade levels. Mathematics improvement in NWEA MAP conditional percentile growth was determined for 5th grade students in participating classrooms and students at the participating schools when matched to the comparison groups. Language

SAMPLE for Paired Comparisons (MERA 2017)

improvement in NWEA MAP conditional percentile growth was determined for 5th grade students in participating classrooms and students when matched to the comparison groups.

Using the conditional growth index (CGI) to calculate if the difference in growth was statistically significant between groups, it was determined that 5th grade students in participating classrooms grew at a higher rate than the comparison group and that 6th, 7th, and 8th grade students in participating classrooms grew at a lesser rate than the comparison group.

NWEA MAP Mathematics Conditional Percentile Growth



In language arts, it was determined that 5th grade students in participating classrooms higher growth rates than the comparison group and that 6th and 7th grade students in participating classrooms grew at a lesser rate than the comparison group.

NWEA MAP ELA Conditional Percentile Growth

