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PURPOSE: To describe patterns in algebra instruction of teachers' explanations of *what* students were learning in the lesson and *why*, and whether they are connected to other lessons.

Data from 46 Alg 1 teachers across 14 states; 3 lesson observations each; 2 coders.

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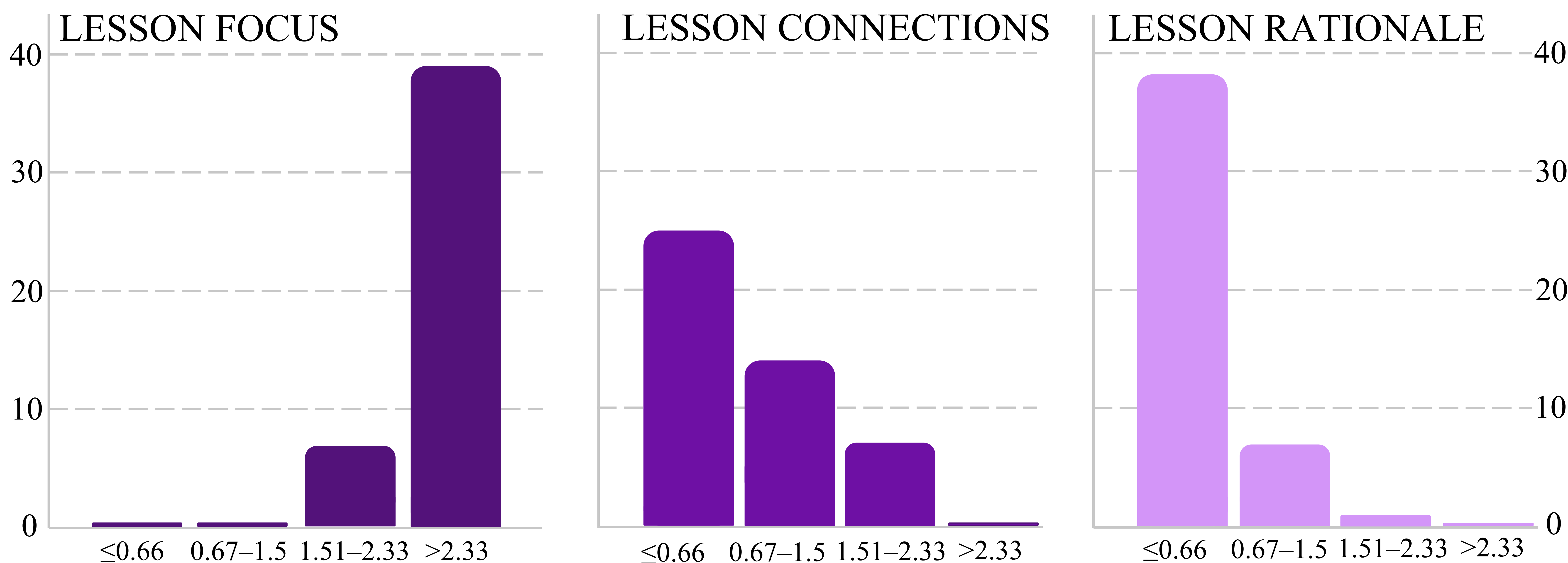
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FINDINGS

- ☐ Lesson Focus (*what is learned*) was explicit in most lessons; often shared near the beginning, multiple modes.
- ☐ Lesson Connections (*links to past or future content*) varied widely between lessons.
- ☐ Rationales (*why lesson content should be learned*) were usually absent and were rarely mathematically substantive.

DISCUSSION

What efforts can our field make to answer the “Why do we need to learn this?” question at the lesson level rather than the subject level?



“Today, it’s going to be all about linear functions. What does this look like when we have a table or an equation.”

“Today’s big objective is to get better at function notation and to understand why domain, range and average rate of change are important in math.”

“You will be working on tasks related to fraction equations the next two lessons.”

“You will learn how to complete a square, but let’s review factoring a bit.”

“Today, we are going to talk about slope of a line. This is important in the real world.”

Student: Why do we need to learn about linear functions?
Teacher: It helps in everyday life, like when you have a job and get paid by the hour.

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