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**Teachers' considerations of students' thinking during mathematics lesson design.**

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Summary: Teachers' abilities to design mathematics lessons are related to their capability to mobilize resources to meeting intended learning goals based on their noticing. In this process, knowing how teachers consider Students' thinking is important for understanding how they are making decisions to promote student learning. While teaching, what teachers notice influences their decision-making process. This article explores the mathematics lesson planning practices of four 4th-grade teachers at the same school to understand how their consideration of students' learning influences planning decisions. Case study methodology was used to gain an in-depth perspective of the mathematics planning practices of the teachers. Results indicate the teachers took varying approaches in how they considered students. One teacher adapted instruction based on Students' conceptual understanding, two teachers aimed at producing skill-efficient students, and the final teacher regulated learning with a strict adherence to daily lessons in curriculum materials, with little emphasis on student understanding. These findings highlight the importance of providing professional development support to teachers focused on their noticing and considerations of students' mathematical understandings as related to learning outcomes. These findings are distinguished from other studies because of the focus on how teachers consider Students' thinking during lesson planning.

*Classification:* D40 C29 C30

*Keywords:* lesson planning; students' thinking; planning decisions

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