

60-Second SoTL

Episode 5 – Data-Driven Reflection on Teaching

(Piano Music)

00:03

Jessie L. Moore:

How might graphical representations of their classroom practices help teachers reflect on their teaching? That's the focus of this week's **60-second SoTL from Elon University's Center for Engaged Learning**. I'm Jessie Moore.

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In "Using data about classroom practices to stimulate significant conversations and aid reflection," published in the *International Journal for Academic Development*, Anna Wood, Hazel Christie, Jill MacKay, and George Kinnear describe both a process for generating data that represents classroom practices and a strategy for facilitating reflection about that data.

As part of a larger project, the team collected FILL+ data from 247 lectures – or class sessions – given by 45 teachers. FILL+ – or Framework for Interactive Learning in Lectures – involves recording class sessions and then coding the observed activity. 10 codes designate activities like "lecturer talk," "lecturer question," "student response," and "student discussion." The ten types of activities are further classified as "interactive," "non-interactive," or "vicarious interactive," such as when a teacher is discussing questions with an individual student.

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From this broader participant pool, the authors recruited 17 teachers from Science, Technology, Engineering, Mathematics, and Medicine – or STEMM – to participate in educational development interviews. Following the approach of Julie Mooney and Janice Miller-Young, educational development interviews are guided conversations about teaching that often occur with a non-disciplinary colleague who is not familiar with the participant's disciplinary teaching practices. Our show notes for this episode include a link to a video of Mooney and Miller-Young discussing this reflective interview strategy.

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In the current study, the researchers used FILL+ data for the 17 participants' class sessions to generate three types of graphs. The first graph provided a timeline of the activities in each lecture, the second showed the proportion of each class session spent on each of the ten classroom activities, and the third compared the participants' interactivity level with other teachers in their field.

During 50-minute educational development interviews with each participant, the researchers first asked participants about their approaches to teaching and then shared the FILL+ graphs and asked participants about their reactions to the data and how it might inform their teaching.

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Most participants appreciated the data visualization of their teaching, which made their teaching practices visible in a new way, helped them consider how their actual teaching practices compared to their intended teaching practices, and enabled them to be more reflective teachers as they considered how the data might prompt them to adjust their teaching. Some participants noted that the graph comparing the interactivity of their teaching to their colleagues' gave them a previously unavailable glimpse into how others taught.

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Nevertheless, some participants did not identify the data as useful, particularly if the data or the researchers' focus on interactivity were at odds with the participants' teaching philosophy.

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While the scholars note that the FILL+ data visualization helped participants shift from a teacher-centered perspective to a student-centered perspective of how students experienced the class, they also caution against using the strategy to formally evaluate teaching, which could undermine the benefits of this data-driven reflection strategy.

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To learn more about this study, the FILL+ observation tool, and educational development interviews, follow the link in our show notes to read this open-access article and related resources.

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(Piano Music)

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Join us next week for another snapshot of recent scholarship of teaching and learning on **60-second SoTL from Elon University's Center for Engaged Learning**. Learn more about the Center at www.CenterForEngagedLearning.org.

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