60-Second SoTL
Episode 58 – Classroom Architecture, Pedagogical Strategies, and Cell Phone Use

(Music)

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Jessie L. Moore:
How do classroom architecture and instructor pedagogical strategies impact students' phone use during class? That's the focus of this week's 60-second SoTL from Elon University's Center for Engaged Learning. I'm Jessie Moore.

In "The Impact of Classroom Architecture and Pedagogical Strategies on University Students' Disruptive Phone Usage in Calculus," Isabel Harris and Melinda Lanius use classroom observation data to explore students' cell phone use in class. Their article appears in the open access journal, *Teaching and Learning Inquiry*.

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The researchers focused on students' cell phone use in a required supplemental instruction section for a calculus class that met twice a week. Once a week, the supplemental section instructor used a lecture format, and once a week, the instructor used a group work format. The supplemental section also met in two different classrooms: One was an oversized, student-centered classroom that had moveable tables grouped in circles and a centrally-located teacher station. The second classroom was teacher-centered, with student desks facing the front of the classroom. The article provides more detail about both the pedagogical strategies and the classroom architectures.

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Harris and Lanius adapted a classroom observation protocol to track when students used their phones during class and for how long. The researchers also assigned students an exit task for each class period. Students answered an open-ended conceptual question related to a topic covered that day and a Likert scale self-evaluation of their confidence.

The authors provide a complex statistical analysis of the observational phone use data, the concept checks, and students' confidence assessments. Phone use differences by pedagogical strategy were not statistically significant, but Harris and Lanius note that some *productive* phone use was observed during group work lessons, which also had slightly less *disruptive* phone use.

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Classroom architecture correlated with greater difference in student phone use, with students in the oversized, student-centered classroom using their phones more – and for longer periods of time – than students in the teacher-centered classroom.

Regardless, the authors did not identify a correlation between students' time spent on their phones and their conceptual understanding of the material assessed in exit tasks.

The authors include the Phone Observation Protocol as an article appendix if readers want to replicate this SoTL study.

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To learn more about this study, visit our show notes for a link to the open access article and related resources.

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Jessie Moore:
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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