

# SAMTAL@SU

Science and Mathematics Teaching and Learning Seminars

## Using Interleaved Practice to Enhance Undergraduate Students' Problem-Solving Skills

**Steven Pan**

*Lunch seminar 12:10-12:50 followed by optional informal discussion (samtal) over coffee.*

*Register for the seminar and lunch a sandwich: <https://doodle.com/meeting/participate/id/dL8zOKqd>*

**Date and time: Thursday 13 October 12:10-12:50**

**Place: FA32, Plan 3 AlbaNova**

Perhaps inspired by the adage that practice makes perfect, many learners commonly focus on one skill at a time to the exclusion of others. For example, when learning skills A, B, and C, one might study or practice skill A by itself, then skill B by itself, and so on. This method of scheduling one's learning, which is also known as "blocking," is endorsed by teachers, coaches, and instructional guides. However, mixing several skills in an "interleaved" training schedule – for example, alternating between skills A, B, and C – can in some cases yield substantial learning improvements relative to the usual one-at-a-time approach.

I will present new research on interleaved practice, focusing on the acquisition of problem-solving skills in the domain of undergraduate physics. This research has important implications for instructional practice, the science of learning, and anyone who wants to learn more effectively.

*Dr Pan is the director of the Learning Sciences Laboratory in the Department of Psychology at the National University of Singapore. Using laboratory, classroom, and online studies, he investigates human learning and memory processes and the optimization of those processes. The chief aim of his work is to identify techniques that enhance the durability and flexibility of learning in educational contexts.*



SAMTAL@SU seminars are arranged in collaboration with:

The Department of Teaching and Learning

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