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## The Clicker Study

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SKMC Class of 2022 SI/ME Abstract

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### **The Clicker Study**

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**Purpose:** A recent study in orthopedics showed that clicker-based learning was more effective than traditional feedback when teaching procedures. We sought to determine whether this principle is applicable to ultrasound skills.

**Methods:** Our prospective randomized control trial used a population of new ultrasound learners. Exclusion criteria included previous ultrasound experience of more than one hour. Students were shown an instructional video on the Focused Assessment with Sonography in Trauma (FAST) exam and randomized to receive clicker or scripted feedback. Each student performed the FAST exam once without feedback, then with either scripted or clicker-based feedback. They were timed and scored on 18 microskills.

**Results and Conclusions:** 45 students were enrolled in the study, with 6 excluded from analysis. This included 24 premedical and 15 medical students. No significant differences were observed between groups for time or accuracy on the FAST exam. Among medical students, there was a trend toward faster results in the clicker group (mean=83 seconds) than the script group (mean=103 seconds) ( $p=0.22$ ). Among undergraduates, there was a trend toward higher accuracy in the script group (mean=100%) than the clicker group (mean=95%) ( $p=0.068$ ) and towards faster performance (mean=103 seconds) than the clicker group (mean=121 seconds) ( $p=0.38$ ). Although no significant differences were observed, there seemed to be a trend toward faster performance with clicker feedback among medical students and faster and more accurate

performance with scripted feedback among premedical students. This may be an area for future study.