## ACOUSTICS2008/358 Classroom noise in schools containing children learning English as a second language

## Gina Ramirez 5924 N. Campbell Avenue, Chicago, IL 60659, USA

This study analyzes the acoustics of two elementary schools containing both native English speaking children and large English learning populations, to determine if facilities are best being utilized acoustically. As stated by the ASA, children learning English require a more favorable signal-to-noise ratio and should thus be instructed in quieter learning environments. The study examined at least 20 classrooms in each facility by measuring ambient noise level and reverberation time by methodologies outlined in the ANSI S12.60 (2002) standard. Creating a noise mapping allowed for the evaluation of each school based on utilization of preexisting facilities. Based on preliminary results all classrooms tested failed to meet the maximum A-weighted steady background noise level specified in the standard furthermore schools placed English learning students in environments that were up to 10 dB louder than classrooms used for native English speaking students, demonstrating that more attention to ambient noise level and its effect on speech intelligibility is needed when planning the layout of learning facilities containing large English learning populations. The ongoing analysis of the data aims at assessing the impact of the measured acoustical environments in terms of perceived intelligibility by using a survey tool among the student population.