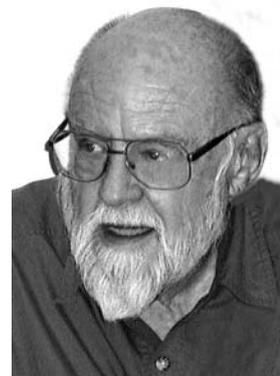


# Editorial

## Classroom Noise



The “open classroom” concept in elementary education, which has waxed and waned over the past five decades, shows signs of resurgence. One of its central tenets is the removal of fixed schoolroom walls, which are viewed as barriers to effective interactions among students, work areas, and interests. But when fixed walls are replaced by movable panels, there may be an unintended consequence, a rise in overall schoolroom noise levels.

In this issue of *JAAA*, authors Donald Jamieson, Garry Kranjc, Karen Yu, and William Hodgetts ask how classroom noise levels affect speech intelligibility in the youngest students, those in kindergarten and first grade. In the article “Speech Intelligibility of Young School-Aged Children in the Presence of Real-Life Classroom Noise,” they report results on 40 children in kindergarten, first, second, and third grades. They first took a tape recorder into an elementary school classroom and recorded the ambient background noise. Then they tested 40 children on a variety of word materials, including monosyllables, spondees, trochees, and trisyllables, and at a number of signal-to-noise ratios (S/N ratios), as the children listened to the words against the recorded noise background.

All children performed well in the absence of background noise, but as the noise level increased, performance, not unexpectedly, declined systematically. Of particular interest, however, was a very large disparity between younger and older students for front-mid vowel monosyllabic word understanding at an S/N ratio of -6 dB. Whereas second and third graders continued to do reasonably well at this S/N ratio (94–97% correct), the performance of kindergarteners and first graders fell dramatically (73–76%). This particular signal-to-noise ratio is of unique interest because of previous studies showing that the -6 dB S/N ratio is common in elementary school settings. The authors conclude not only that typical classroom noise levels negatively affect the speech intelligibility of young children but that the effect is particularly true for the youngest children in the school.

Is this yet another vote for the more widespread use of remote-microphone technology in the classroom?

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*Editor’s Note:* Beginning with this issue, certain figures not in color in the printed journal will be available in color on the *JAAA* Web site: <http://www.audiology.org/jaaa/>. See pages 512 and 527 for figures that will appear in color online.