



## **Arkansas Speech-Language-Hearing Association**

### **Position on Classroom Acoustics and Use of Sound Field Amplification in the Classroom**

With the evaluation of Arkansas' public school buildings at hand, the growing emphasis on student achievement, and standards for classroom noise and reverberation in place (ASHA and ANSI), the Arkansas Speech-Language-Hearing Association is advocating for the Department of Education to follow acoustical performance criteria, design requirements, and guidelines for schools from the American National Standards Institute when building new schools and remodeling existing ones.

Adopted by the American National Standards Institute in 2002, these standards were developed when increasing evidence from research showed that improved classroom acoustics leads to improved student achievement. The following criteria are specified:

- |                                    |             |
|------------------------------------|-------------|
| 1. Unoccupied background noise     | 35 dBA      |
| 2. Reverberation                   | 0.6-0.7 sec |
| 3. Noise Criteria Curve            | NC 30       |
| 4. Preferred signal-to-noise ratio | +15 dB      |

The Arkansas Speech-Language-Hearing Association also supports the position of the Acoustical Society of America by advocating for mainstream classrooms to be designed to conform to the above acoustical standards to ensure satisfactory speech communication for learning, in addition to the routine use of sound field amplification systems.

#### References:

Acoustical Society of America, American National Standard Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools. ANSI S12.60-2002.

Acoustical Society of America, Position on the use of sound amplification in the Classroom. May, 2006.