Analysis of the Acoustic Environment at School

and the Student’s Listening Skills at School

The Listening Environment Profile is a tool used to assess the listening environment of the classroom. The classroom under analysis scored a total of 36 out of a possible 55 points designating it a poor listening environment. The results explain that regular support is needed for the teacher and the student as well as modifications for the classroom and an addition of sound field amplification. The classroom analyzed, amongst others within the newer school is scheduled to be acoustically retrofitted. An acoustic engineer came in late spring last year to test and this year they have selected 4 rooms to start working on. Currently the hard surface and sloped ceiling has noise echoing so they plan on lowering the ceiling and using acoustic tiling. They will add absorbent materials on the walls and put in carpets.

The classroom noise level scored a 5 as it reached high noise levels over 50 dBA. The reverberant quality of the room is loud as the voices and sounds bounced all over the room. The decibel meter in the Fall when all the students were in the room and the teacher was testing the room and the room was 85 dB at it’s peak. Over a period of 20 minutes the lowest was 72 dB. The classroom acoustic treatments scored a 5 as it has no acoustic treatments. There are no carpets, drapes or acoustic ceiling tiles. The noise sources category scored a 5 as well as there were two or more constant noise sources. There is a heating fan that hums when it is on. The door is also open for ventilation most of the time and the windows are generally open in the Spring. The classroom structure scores a 5 out of 10. Due to the teachers teaching style, there are always group discussions and projects. The class is also a split grade, which means there are two teaching blocks. There are also 1 or 2 Special Education Assistants in the class supporting 12 students with needs. It is a busy classroom so there is lots of continuous noise. The class size section scored a 5 as there are over 25 students with an actual count of 29. The grade level counts as a 3 as it is a Grade 6/7 class. Since the number of students with special needs is more than 3, this category scored a 5. The teaching style scores a 1 as he is very expressive and highly redundant. He is engaging and makes the time to connect individually with students. He will explain his content in many different ways to account for all the learning styles in his class. He also uses his voice to show difference in meaning. He is not monotone, and he encourages expression in the kids’ responses too. He gives them opportunities to create plays and express themselves through presentations. The teacher encourages participation from everyone. He will reiterate the question of another student across the other side of the class so that his student can hear. The teacher scores a 1 for his loud voice. He used to be a football coach and taught PE in high school. He has no accent and is really good about using the FM system. The teacher’s attitude towards technology is illustrated in his class as he very enthusiastic and uses it creatively scoring him a 1. He implements it in to his curriculum as the work with laptops when working on projects. He uses the FM system and openly welcomes other sources of technology.

Due to the poor listening environment, it will make it difficult for a student who is hard of hearing to have full access to language. The background noise is going to strain the student’s hearing leaving them fatigued. It is fatiguing for everyone in the class with teachers even complaining they have headaches at the end of the day when teaching in those classrooms. The student in this room also has attention, language processing, and expressive delay issues. As they are not processing language easily, this type of environment make is very difficult to function at his optimum. Even though the teacher uses the FM system, the student’s class peers are not using them in group discussions. He is not getting full access to what his peers are saying especially when distance or location is present. The teacher does use strategies for his student’s success as he uses the FM and allows him to work on the computer, sit in certain places or goes outside to work and reiterates other student’s questions. With a classroom that has poor acoustic qualities, the teacher does a great job of using the strategies the HRT has discussed with him.