Chapter 2

Student Listening Behavior

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Starting a book on teacher communication by first talking about students might seem strange. To better understand this focus, it is important to note that communication is defined as the process by which one or more persons stimulates meaning in the mind of another using verbal and nonverbal messages (McCroskey, 1992). A close look at this definition reveals that attempts at communication are useless unless the appropriate meaning is stimulated in the receiver's (the listener's) mind. In a sense, the whole process is centered around what our messages end up meaning to our receivers. In the classroom, this means that the "bottom line" for teachers consists of whatever messages are received by students. Thus, it makes much sense to examine students' listening behavior. Without understanding the way in which students listen and process teachers' messages, teachers should not expect to be very successful at stimulating the desired meaning in their students' minds.

For teachers (especially new ones), concerns other than student listening usually come to mind first, such as "How will I fill the whole hour with this material?" "How can I explain this?" or "What if they look bored or are talking instead of paying attention?" Teachers often fail to see that the answers to all of these questions can be found to some extent by understanding their students' listening behavior. The teacher who understands the components of listening behavior and the factors that influence the way people listen will understand how to structure a class period to maximize students' attention to the material and will present that material in a way that is clear and maintains student interest.

But there is an even more fundamental reason to learn about student listening behavior. If the point of teaching is for students to learn, and students usually cannot learn if they do not listen effectively in class, then teachers owe it to their students to learn about how students listen. In other words, teachers should teach in a way that is most conducive to effective student listening and learning. This point sounds obvious, but it often eludes teachers. Lecturing is a prime example. Of all the public speakers we encounter, consider the number we enjoy seeing
speak for at least an hour at a time. Outside of stand-up comedians and motivational speakers, there probably are few. Even assuming we enjoy seeing those speakers speak for so long, how much do we remember from the hour-long presentations? When put like that, the idea of listening to an hour-long lecture sounds silly. Still, it is pretty typical of teaching. Of course, note taking and question and answer periods help aid memory, but most teachers would benefit from a greater understanding of how their students are listening to them and interpreting their messages. With this in mind, this chapter presents the major parts of the listening process and provides suggestions for teaching in a way that is conducive to effective student listening and learning.

The Listening Process

As with many communication concepts, several definitions and models of listening exist. This is not the forum in which to review or debate all of these. Regardless of the specific models of listening behavior that exist, most agree that listening involves sensing, attending to, interpreting, remembering, and responding to stimuli (the sights and sounds we listen to). This chapter will discuss each of these aspects of the listening process as they relate to classroom learning.

Sensing and Attending

Sensing refers to our five senses and all of the information listeners can gain from them. The senses of hearing and sight are most relevant to the present discussion of listening. Before students fully listen to anything, they first sense it by hearing it, seeing it, or both. In the classroom, there are a number of things students can sense: the lawnmower outside, the two students talking and laughing in the back, the attractive student in the next seat over, the student with the loud cough, and maybe even the teacher. Add to all of this sensory information any psychological distractions: another class in which a student may be struggling, problems with financial aid, anxiety about an upcoming speech, what’s going on during the weekend, problems with a boyfriend or girlfriend, problems at work, problems with a roommate or with family at home, and so forth.

Given this abundance of available sensory stimuli, it is clear that teachers are not guaranteed their students’ attention. Students may be able to sense everything, but they cannot keep their focus on everything and therefore they must be selective in their attention. Something must be sacrificed, and unless teachers are responsive to their students’ listening behavior it may be the teacher’s message that is ignored.

Teachers should be aware that attention to classroom messages takes effort and that attention spans are short when compared to the typical length of a lecture. Studies in vigilance, or sustained attention (attempts to pay attention to one thing for a long period of time), reveal that after students attend to the same stimulus for a while, the quality of their attention diminishes (Perry and Laurie,
1992). As time passes, students are more likely to daydream or become distracted by other classroom stimuli. Teachers should keep this in mind when lecturing. The longer they lecture, the greater the chance that their students’ attention to the class material will fade. As a result, it is a good rule of thumb to lecture for no more than 20 minutes at a time. At regular intervals, teachers should pause to ask questions, provide demonstrations, or conduct activities. This variety will enable students to attend to each of the different attentional tasks (lecturing, questions, activity) without having to attend to any one task long enough to challenge the stamina of their attention.

So far, it is clear that students’ attention is an important part of the teaching process. It is quite selective, and even when it is focused it can be fleeting. Providing a variety of classroom messages is one thing a teacher can do to maximize students’ attention to classroom messages. Other things teachers may do will be discussed in later chapters on teacher immediacy and content relevance. Of course, attention is only one part of the listening process. Once teachers have students’ attention, they must make sure that the messages received by the students are the same ones intended to be sent by the teacher. In other words, teachers must make sure that their messages are interpreted accurately.

Interpreting

It is important for teachers to remember that each student in the classroom is approaching classroom messages from his or her own unique perspective. Collectively, students have grown up in different areas or states, been brought up by different kinds of families, experienced a variety of life events, and taken a unique combination of classes before taking yours. Therefore, a classroom of 20 people essentially is a classroom of 20 different points of view that may interpret your classroom messages in 20 different ways. The good news for teachers is that students also have shared a number of similar experiences and teachers can capitalize on those similarities to increase the likelihood that classroom messages are perceived consistently.

As people learn from their experiences in life (both in and out of school), the information they learn is organized mentally, almost as if each new piece of information one learns is “filed” away into a complex “filing” system. The name given to this structure or system has varied, but the three main terms used to describe the way information is organized in our minds are schema, scripts, and frames. Rather than exploring the differences between each of the three terms, the term schema will be used throughout the remainder of the chapter to refer to the way in which information is organized mentally.

Schemas are mental representations of knowledge. It is useful to think of a schema as being like a mental “filing cabinet,” “blueprint,” or “concept map” of how groups of similar information are organized in our mind. Not entirely unlike an outline in a student’s notes, each schema is organized around a central topic and contains more specific material related to the central topic. Schemas have a number of properties (Baddeley, 1990). People can have a schema for any area of
knowledge they possess. For example, a psychology major may have a well-developed schema in which information about major theories, methods of research, and approaches to psychology are organized, while the non-psychology major may have no such mental structure. Another property of schemas is that they may be imbedded within each other. For example, the psychology student who has to take the common psychology statistics course is using her math schema within the context of her psychology schema. Schemas also may vary in abstraction. In other words, people have schemas for concrete ideas such as directions to friends’ houses but also for such abstract concepts as love and justice. Schemas also have some fixed parts and some variable parts. For example, once students have been at school at least a semester, they have a consistent schema for what happens during classes: Students arrive on time, the teacher takes attendance, class proceeds, and during the last 10 minutes of class students fidget and pack their materials in their bags to communicate their readiness to leave the class as soon as possible. However, there is much room for variety within that general schema, as each class will have its own unique features.

Another important aspect of schemas is that they differ in the extent to which they are developed. Each individual will have some well-developed schemas and some weaker ones. Teachers may have a well-developed schema for their own subject but have little or no schema for another subject. The idea of schema complexity is important when considering the way in which a person will interpret a message. For example, imagine two friends—Friend A, who knows much about football (developed schema), and Friend B, who knows very little (no schema). Imagine a third friend starting a conversation about football by saying something like “the Bills will do all right this year, but they need to get a new free safety, change their defense to a 4-3, and move to a 1 back system.” Consider whether Friend A or Friend B is more likely to (1) understand the message and interpret it correctly, and (2) remember the message for a longer amount of time. According to schema theory, person A will understand the message because a schema is in place that will allow the message to be interpreted correctly (Edwards and McDonald, 1993). Person B has no such schema in place, and therefore will have a harder time understanding and remembering the message. Schemas help people interpret incoming information, and if no schema exists, we are less likely to accurately remember or recall the information at a later date (Brownell, 1996). Instead, information is likely to be distorted to fit existing schema (Brewer, 1977) or forgotten.

It is important for teachers to understand the importance of schema so they can teach in a way that enables students to correctly interpret classroom messages. Teachers first should consider the extent to which their students’ schemas for the subject are likely to be developed. In order to enable students to develop their own schema for the course material and remember what may at first be very new information, teachers should make every effort to tie new information into schemas that students already have. For example, teachers should start by using terminology that is familiar to students before using more complex terminology. In other words, language should be on the students’ level before moving onto
more complex levels. For example, a colleague of mine once introduced the "peripheral route of processing of persuasive messages" by calling it the "Homer Simpson way of processing persuasive messages." Even though neither of these terms is completely clear, one is much more likely than to the other to "tap into" students' schemas. Once students are able to tie new information into existing schemas and understand the gist of the material, they will be more prepared to develop their own schema for the material. Again, the value of having a student-centered approach to teaching is clear: Teachers who consider their students' points of view and schemas are more likely to teach so that students will attend to and understand classroom messages. However, understanding is not enough, as students also have to remember that which is being taught.

**Remembering**

This section will discuss the ways in which remembering is an important stage of the listening process, especially student listening. In doing so, several aspects of memory, learning, and educational psychology are discussed.

**Timing and Memory.** The way in which teachers and students use their time is important in terms of memory. The existence of primacy and recency effects means that students are most likely to remember the information that is presented earliest and latest in a class. This explains why teachers should preview and review their most important content at the beginning and end of their classes. The way students use time to learn and remember also influences memory. It is much better to study or learn in small chunks of time rather than larger ones (reviewed by Baddeley, 1990). When taking 5 hours to study or learn, it would be better to learn in one-hour blocks for 5 days rather than trying to learn everything in one 5-hour block of time. This is another reason teachers should take breaks from presenting material to allow for activities. By taking breaks, information is grouped into smaller units, and if each small unit is previewed and reviewed at the beginning and end, primacy and recency effects also should lead to improved memory. In addition to understanding the importance of timing, teachers and students should understand the importance of the way in which information is processed. This is detailed in the next section on types of memory and information processing.

**Models of Memory.** Several models of memory have been offered to explain how the process works. An early approach held that there were memory stores or systems: sensory, short-term, or working memory, and long-term memory (Atkinson & Shiffrin, 1968). Anything that can be sensed is temporarily stored in the sensory register for only 3 to 4 seconds. Information in the sensory register that we attend to by focusing on it is in our short-term memory store, and it may last there for seconds up to about one minute (as when we are introduced to someone; we attend to his or her name but may forget it in a matter of seconds). The process by which information is retained long enough to be stored in long-
term memory is called rehearsal. Information is rehearsed when someone processes it mentally in order to remember it. Atkinson and Shiffrin held that the more information was rehearsed while in short-term memory, the greater the chance that it would survive to be stored as a long-term memory. This explains the logic behind repeating someone's name to ourselves upon being introduced in order to remember it.

Although simple rehearsal can help memories last longer, some memory researchers began to realize that the way in which information is rehearsed also is an important factor influencing memory. Shifting the focus from different types of memory (short-, long-term) to the quality of rehearsal, Craik and Lockhart (1972) presented a model of memory that focused on levels of processing. In doing so, they identified two types of rehearsal: maintenance and elaborative. Maintenance rehearsal is a more simple kind, in which information might be repeated (as with names or phone numbers). Although this type of approach can enable someone to prevent forgetting information, it is not thought to ensure the long-term learning that is achieved through elaborative rehearsal. Elaborative rehearsal involves greater effort than maintenance rehearsal and may involve the use of mnemonic devices (e.g., ROYGBIV for the colors of the spectrum), and linking to existing memories (e.g., when hearing someone's name thinking of someone we already know by that name so that we remember the new person), and thinking of examples of new information (thinking about amusement park rides to remember such physics concepts as centrifugal force), along with other means of effortful processing. The difference between these types of rehearsal is that elaborative processing takes more effort than maintenance rehearsal and is more likely to lead to long-term learning (notice how it often involves attaching new information to existing schemas).

Regardless of the different theoretical approaches to memory, theorists tend to agree that some type of effortful processing is needed to assure long-term learning. The effort that elaborative rehearsal requires helps students develop new schemas for material or attach material to existing schemas. Teachers can encourage this type of processing by teaching students about it, asking questions that require students to elaborate on the material, creating activities that require students to elaborate on the material, and if possible, by using essay test questions that require integration rather than multiple-choice questions (which tend to rely on maintenance rehearsal—memorization).

**Metacognition.** Recognizing the importance of elaboration, educational researchers have focused much attention on a process known as metacognition, which involves an awareness of one's own thinking and information processing and a monitoring of this processing while learning (Flavell, 1981). A student who is metacognitively aware is participating in elaborative rehearsal by being aware of learning strategies and employing them in the classroom. Furthermore, studies comparing high-achieving and lower-achieving students indicate that higher achievers are more likely to use more metacognitive strategies (Romainville, 1994). At first, it might seem odd to encourage students to spend so much time
thinking about thinking, as they already are busy taking notes and trying to “get” every thing the teacher is saying. However, listeners actually can process information much faster than people speak, meaning that a thought-speech differential exists (Wolvin & Coakley, 1996). As a result, students actually do have “room” to think about thinking and employ learning strategies while in the classroom.

Lundsteen (1993) offers a number of metacognitive strategies that students might find useful (and that teachers might wish to encourage). Students may consciously direct their attention to important parts of the message by reminding themselves to identify the central idea or try to identify the most important point of the lecture. Students doing this would be less likely to daydream and suffer from attention lapses because they actually have a goal for the class session that they want to achieve. Students also can employ a self-questioning strategy while listening to the teacher, in which they develop questions that they then attempt to answer themselves. For example, a teacher reading this chapter would ask the self-question “This stuff about student learning is interesting, but how should my teaching change to improve my students’ listening behavior?” In doing so, this “student” would be focusing his attention, elaborating, and attaching new material to existing schemas. Students also may use the strategy of asking teachers to clarify or try paraphrasing the teacher’s message (“So what you mean by this is . . .”) back to the teacher to assure that their interpretation is correct. Strategies already mentioned, such as forming examples or linking information to past experiences, also are metacognitive strategies. Colin Rose and Malcolm Nicholl (1997), whose Accelerated Learning program recognizes the importance of metacognition, also offer some strategies. One strategy is to try to get an overview of the subject at the beginning of the semester, whether that means flipping through the book or the previewing teacher’s syllabus. Notice how this strategy would help provide the framework for a new schema for the material. As mentioned earlier, Rose and Nicholl also suggest the strategy of identifying the core idea of a subject in order to add to the foundation gained by skimming the material. A third strategy is for each student to identify that which she or he already knows about the subject. This strategy has a few benefits. First, it activates all the schemas that are relevant to the topic. Second, it is a positive starting point in that it gives the student a chance to recognize all she already has learned about the subject. Third, it enables the student to see the areas in which she needs to learn more and more fully develop her knowledge.

Regardless of the strategies being used, notice the benefits of metacognition. It involves focused attention, and diverse methods of elaborative processing, both which are conducive to long-term learning. Also notice that, as with other aspects of the listening process, elaborative processing takes much effort to effectively remember information. The activity level required for effective learning is clear. Unfortunately, students (and teachers) often fall into a passive pattern of talk → take notes → move on to the next point in the outline. However, teachers can do a number of things to foster more active processing and metacognition in their students: Take breaks and have students write questions about the material, have students pair up and review by “teaching” the material to each other (they will
have to understand the material well to be able to teach it), encourage students to ask questions, devote class periods in the beginning and middle of the semester to have students discuss what they have learned about the subject, have students come up with new examples of concepts, have students discuss concepts in their own words when reviewing, and of course, teach students about metacognition and strategies they can use to improve their own learning. Though the discussion of memory and metacognition may at first seem very student-focused and “out of the teacher’s hand,” it is clear that teachers can do a great deal in the classroom to facilitate their students’ learning. Furthermore, notice that none of the strategies involved lecturing, and that they instead involve a variety of approaches, making them very conducive to holding students’ attention.

Multiple Intelligences. There is one final area of educational psychology that is relevant to student listening, because it suggests that students listen in different ways. In his 1983 book Frames of Mind, Howard Gardner articulates a new way of viewing intelligence by arguing that the traditional view of intelligence (IQ) is unsatisfactory and that people can be intelligent in different ways. Specifically, he identified seven intelligences that everyone possesses to some extent, indicating that each person has a mix of intelligences, some of which are stronger than others. The eight intelligences (he later added one) along with their characteristics are listed in Box 2.1.

Gardner’s approach to intelligence is useful to teachers because it suggests that students learn in different ways (and teachers teach in different ways). Notice that the typical approach to teaching favors the linguistic or logical-mathematical intelligences. Because classrooms are likely to be comprised of students with different intelligence profiles (some highly intelligent interpersonally, others kinesthetically, etc.), teaching should be informed by knowledge of multiple intelligences and teachers should attempt to teach in a way that all students will be able to learn the information effectively.

This is not a suggestion that teachers teach every piece of information in eight different ways. Instead, it is a suggestion that teachers use a variety of methods in teaching in order to involve all students. Rather than consistently teaching by lecturing, teachers can enhance their students’ learning experience by challenging them to learn and think in different ways. In the process of doing this, teachers are likely to “tap into” each student’s learning style. This may sound difficult, but teachers have a number of approaches at their disposal. For example, when teaching outlining in a public speaking course, teachers can have each student represent a part of a speech and then have the students physically move about the room and arrange themselves in the most appropriate outline form (relying on kinesthetic, spatial intelligences) and have them explain their choices (relying on interpersonal intelligences). When teaching audience analysis in the same class, the teacher could have the students role-play to act like different types of audiences while the teacher is speaking and then explain the appropriate ways to adjust to each type of audience (interpersonal intelligence). Also, the teacher could assign short introductory speeches but could require students to bring in a tape or CD of theme music (to be played before, during, or after the speech) that
Box 2.1 The Eight Intelligences

<table>
<thead>
<tr>
<th>Intelligence</th>
<th>Characteristics</th>
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</thead>
<tbody>
<tr>
<td>1. Linguistic</td>
<td>Proficiency with language (reading, writing) and word use</td>
</tr>
<tr>
<td>2. Logical-mathematic</td>
<td>Ability to reason and think logically and systematically</td>
</tr>
<tr>
<td>3. Body-kinesthetic</td>
<td>Effectiveness at using the body to solve problems; enjoyment of activity; adeptness with hands</td>
</tr>
<tr>
<td>4. Interpersonal</td>
<td>Ability to communicate well with others and understand others</td>
</tr>
<tr>
<td>5. Intrapersonal</td>
<td>Ability to understand oneself and to reflect and monitor one's own abilities and feelings</td>
</tr>
<tr>
<td>6. Spatial</td>
<td>Ability to visualize and sense of space and direction</td>
</tr>
<tr>
<td>7. Naturalist</td>
<td>Ability to understand nature and comfort with natural surroundings</td>
</tr>
<tr>
<td>8. Musical</td>
<td>Ability to understand music and its components (pitch, rhythm, harmony, etc.)</td>
</tr>
</tbody>
</table>

data best represents their personality (intrapersonal and musical intelligences, and possibly interpersonal intelligence—if the choice of music stimulates conversation). Although these ideas may look like little more than “fun and games,” they are instructionally sound ideas. Again, they are a departure from lecturing, and the variety is likely to stimulate and hold students’ attention. They are likely to be fun for students. They “tap into” a variety of intelligences. Finally, they all are very much task-related and can be used to illustrate class concepts and help students strengthen their schema for the material.

Notice that memory requires much work of students and their teachers. Consistent with the other stages of listening, this stage takes effort. However, students who attempt to learn actively and teachers who encourage active learning and teach with variety are likely to achieve success in the classroom.

Responding

Some models of listening include responding as one of the final stages (Brownell, 1996; Wolvin & Coakley, 1996). This will not be discussed in detail here as it is
covered to some extent in the Mottet and Richmond chapter on students' nonverbal communication in the classroom. For new teachers, students' responses can be intimidating, as students who look bored or students who are talking to others may be distracting. However, new teachers should remember that looks of boredom, confusion, enjoyment, and enthusiasm all can help the teacher by serving as feedback on what he or she is saying and doing. Teachers should monitor student responses and remember that they can be useful in helping teachers continually improve their teaching.

By starting the teaching process with a focus on student listening, the ultimate goal of student learning—and the means by which teachers can help students achieve this goal—is made clear. Given the ground covered by this chapter, the importance and challenge of listening is apparent. Each stage of the listening process requires effort on the part of the listener. The listener must focus attention, work to correctly interpret information, elaborate on information to remember it, and think carefully to offer an appropriate response. If listening is this challenging for students, then teachers are faced with an even greater task.

The careful (and metacognitive) reader will note that this chapter has not assumed that students even will want to listen to teachers. It would be nice to think so, and it often is the case with some students, but to really be sure students are listening, teachers have to take great care in their teaching. After all, they have to gain their students' attention, teach so that students can correctly understand the material, enable students to remember the material, and take advantage of the feedback they get from their students' responses. To do all of this successfully, teachers must divide their time wisely (to maintain students' attention and enable them to remember information more effectively), teach clearly (much more on this in Chapter 8), create situations that require students to employ metacognition and elaborative processing, present material in different ways to appeal to students with different types of intelligences, and in general, use variety and do much more than just lecture and assume that students are listening. If new teachers do these things, then those earlier questions about filling time and students who appear bored probably will not be an issue anymore.

REFERENCES AND SUGGESTED READINGS


Brownell, J. (1996). Listening: Attitudes, principles,


