

Research Essay on Bottom-Up and Top Down Listening for Elementary Learners

My Reason for Choosing Listening

There are several reasons why listening appeals to me as an area of research. First of all, it is the primary source of input for the learners, especially early learners. (In my personal experience, the low level classes that I teach, both children and adults, all follow textbooks that are light on reading activities, but heavy on listening activities.) According to David Nunan, over 50% of the time learners spend in a foreign language is devoted to listening (as quoted in Nation & Newton p. 37).

Also, I am sympathetic to Krashen's input hypothesis which claims that all language features are acquired through comprehensible input. For example, Krashen believed that speaking ability can not be taught by oral drilling, but instead will naturally emerge if the student is exposed to sufficient language at a level they can understand. Although I believe in a modified form of this (which uses conscientious grammar study as a supplement to comprehensible input), I still believe that no acquisition can take place without plenty of input. Since most of this input is in the form of listening, especially at the early levels, I am interested in finding ways to aid learners in comprehending the input.

Within the general skill of listening, I have chosen to focus on top-down and bottom up listening skills for pre-intermediate students. Bottom-up listening is especially important for the grammatical features to be noticed, and thus important for Krashen's input theory. However many TESOL authorities advocate that top down listening skills should always proceed any bottom-up work (for example Harmer, 1998, p. 100). So it is necessary to focus on both skills in the lesson. I have chosen elementary students for two reasons—one is the obvious practical reason that this is the class I am currently teaching. But also my elementary students struggle a lot with the listening exercises from the textbook, and I want to focus on ways to improve their listening skills.

Analysis

There is wide agreement among theorists that listening actually consists of two skills: Top Down Processing and Bottom Up Processing (a view supported in almost all the resources I consulted, including: Nation & Newton, Pinker, Harmer, Scrivener). Bottom Up Processing is succinctly described by David Nunan, who writes *"The bottom up processing model assumes that listening is a process of decoding the sounds that one hears in a linear fashion, from the smallest meaningful units (or phonemes) to complex texts. According to this view, phonemic units are decoded and linked together to form words, words are linked together to form phrases, phrases are linked together to form utterances, and utterances are linked together to form meaningful text"* (p. 200).

There is an intuitive logic to the idea of bottom-up processing. When we speak we articulate sounds, and we naturally assume listeners are decoding the sounds that we articulate. However, this is probably not the case. *"Spoken language probably comes at you too fast to be able to adopt such an item-by-item approach on its own,"* writes Jim Scrivener (2005, p.178).

In actuality, human beings do not simply decode sound patterns like robots. Steven Pinker, in his book *The Language Instinct*, devotes a chapter to the differences between how humans decode

language, and how computers decode language. Often times the exact same phonemes could be interpreted as multiple words (e.g. *I scream, ice cream*), but unlike computers, humans decode the words according to context. Research and laboratory tests show that oftentimes learners will perceive the words that they expect to hear in a given context, rather than the actual words that are spoken (Pinker, 2005).

All of this indicates that actual listening perception may be a largely top-down procedure. Rather than mechanically decoding the sounds into words, we make large use of the context and our prior expectations to interpret speech.

This awareness has led to a big emphasis on Top-Down Processing in second language classrooms. It is expected that learners will have huge difficulties decoding speech if they are not given sufficient context for the speech, or do not have any expectations. This has led to the Schema Theory. According to this theory, everyone has a mental framework built up of past experiences and previously learned knowledge. We use this framework, or schemata, to help us decode phonemic sounds into meaning. (Nunan, p. 201-204). The English learner, while perhaps not knowledgeable about the English language, already has fair amount of general knowledge about the world, and they will use this knowledge to help them decode the sounds that they hear.

And in fact, schema building has been shown to help accuracy in listening exercises. Nunan reports on an investigation conducted by Spada on the effectiveness of structuring a listening lesson for learners. Learners who did a set of predictive exercises before the listening task did much better on the listening exercises than learners who did not do pre-listening tasks (Spada in Nunan, p.208).

It is therefore the job of the ESL teacher to try to activate the students' schemata before the listening, and to provide sufficient context for the listening.

In my personal experience, many textbooks I have taught out of already follow this pattern, with pre-listening activities designed to familiarize students with the context, and to activate their previous knowledge of the topic. IELTS preparation textbooks also often encourage the student to visualize the situation before listening, and to predict the likely vocabulary that they will hear.

At the same time, however, it is important not to neglect Bottom-Up Listening skills. The process of listening is not solely Top Down or Bottom up, but rather a combination of both procedures at work (Nation & Newton, p. 40-41).

Bottom-up listening skills are especially important for listening tests when the correct answer does not match the content schemata. Research has shown that the students who correctly answered questions where the answer did not match the schemata made use of Bottom Up processing (p. Nation & Newton, p. 41).

Also, in terms of listening comprehension aiding language acquisition, Bottom-Up processing is especially important for noticing grammatical features. In my personal experience, I can think of many students who had very high listening comprehension abilities, but very grammatically flawed production. This is probably because the student has been overly-reliant on Top Down listening procedures to infer

meaning, and as a result has not noticed many of the grammatical features available in the input. Swain's study of English students in French immersion schools also confirms the existence of students who were doing quite well in the subject matter, but not improving their French grammar (as quoted in Nation & Newton, p.41).

It is the job of the language teacher, therefore, to assist students not only in developing their top down listening abilities, but also in their bottom up listening procedures.

Classroom Procedures for Top Down Listening

In my personal experience, I have taught a wide range of levels and I usually find it useful to make a distinction between lower level general English classes, and examination classes.

In an actual IELTS examination, there will be no teacher present to activate the students' schemata before the listening test. The students must therefore take the responsibility for doing the pre-listening tasks themselves, although the teacher should help them with strategies. (And most IELTS textbook teach these strategies, for example reading the questions and trying to predict the situation and vocabulary.)

In lower-level classes, the students will not be familiar with these strategies, and the teacher should take a more active role in setting the context. In lower levels especially, the students often feel a certain amount of anxiety when listening to English, and it is important for them to gain successful experiences in listening tasks, so as not to feel disheartened (Scrivener, 2005, p.177). Therefore the teacher should give as much support to the students as possible in the form of setting context, activating schemata, helping with vocabulary, et cetera.

Listening tasks usually create a certain anxiety among students due to the fact that the listeners can not control the speed of material. Unlike reading, they cannot go back and forth in the text to resolve a point of confusion. Unlike conversation, they cannot interrupt to ask for clarification. As Jeremy Harmer says: "...the speed of the speaker(s) dominates the interaction, not that of the listeners. ... It is perhaps this relentlessness of taped material which accounts for the feeling of panic which many students experience during listening activities" (Harmer, p. 99, 1998).

To overcome this feeling of panic, Harmer suggests that listeners be trained to first listen to the tape for a general understanding, rather than trying to pick out every little detail. *"They must first get into the habit of letting the whole tape "wash over them" on first hearing, thus achieving general comprehension before returning to listening for specific details"* (p. 99).

Therefore, every listening exercise should start out with what is commonly known as a "gist" listening, in which the CD is played once just to give the students a general idea of the content before moving on to more specific tasks.

Classroom Procedures for Bottom Up Listening

Several bottom-up listening activities are detailed in chapter 4 of Nation & Newton, but one is dictation. They write that this exercise is useful because *"Dictations help language learning by making*

learners focus on the language form of phrase and clause level constructions, and by providing feedback on the accuracy of their perception” (p. 59).

Nation & Newton write that a good dictation text is *“a piece of connected language about 100 to 150 words long”* (p.59). The teacher reads the text to the class, and the students write down the words that they hear.

Nation & Newton detail several variations on dictations (*running dictation, one chance dictation, dictation of long phrases, guided dictation, dictation for a mixed class, peer dictation, perfect dictation, unexploded dictation, monitoring dictation, dictogloss, et cetera*).

Since this is the first dictation activity I will be attempting with this group of students, the completion dictation combined with the sentence dictation seems appropriate as this will give them the most possible support. In the completion dictation, the students have several copies of the text. In the first dictation sheet only a few of the words are missing. The next copy has more words missing. This continues until the students are writing the whole text.

This activity can be combined with sentence dictation, which is a technique where the teacher writes the correct sentence on the blackboard (or PowerPoint) immediately, to give the students a chance to see and correct their mistakes before moving onto the next sentence.

With Vietnamese students in particular, the /s/ sound on the end of words is particularly a problem. It is most obviously a problem in production, but I have noticed in my own classrooms that is often a problem in perception. (In my IELTS classes, for example, students will often lose points on practice examinations because they do not hear the final “s” on the end of the word.)

Therefore, I am anticipating that the final /s/ sound will be particularly challenging for my students in a dictation activity.

There is, however, a technique advocated by Nation & Newton to help students with any difficulty in perception. They advocate several pre-dictation activities (p.61-61). One such activity is to have the students study the text before the dictation, and to be directed to underline certain features such as *“verb endings, plural s, etc.”* (p.61)

Bibliography

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