Lesson plan for the patient who has difficulty hearing the voices of women and children

Week	Games	Voices	Comments/Notes
1	* pEARI Crunch, adjust noise to preference * EARonaut, in quiet	Male Female	
2	* EARonaut, adjust noise to preference * pEARI Crunch, in quiet	Male Female	
3	* FarmEAR in the Dell * MountainEAR	Male Female	
4	* Treasure EARland * MountainEAR	Male Female	
5	* ShakespEARe * pEARI Crunch, adjust noise to preference	Female Female	
6	* EARonaut, in high noise * Treasure EARland	Female Female	
7	* MountainEAR * EARonaut, in quiet	Male Child	
8	* Treasure EARland * pEARI Crunch, in quiet	Male Child	
9	* MountainEAR * ShakespEARe	Child Child	
10	* FarmEAR in the Dell * Treasure EARland	Child Child	
11	* pEARI Crunch, in high noise * EARonaut, in high noise	Child Child	
12	Patient's choice Patient's choice	Female Child	

	Goals	Tips
Week 1	Play pEARl Crunch at least 10 minutes twice this week with a male talker with the noise adjusted to your preference	"pEARl Crunch forces you to pay attention to those endings of words that add subtle meaning, such as the plural "s" in a word like *boys* or the negative "n't" in a word like *can't*. These endings are often hard to hear and easy to ignore. You are starting with male voices to develop your ability to pay attention to word endings. In later lessons, you will to listen to women's and children's voices." "During every day listening, we tend to listen for the 'meat' of the word and not subtle nuances. For instance, we often do not distinguish between the words *smile* and *smiles*. This game forces you to pay attention to word endings. Think about it: There's a big difference between, "I *can* pick you up from the airport" and "I *can't* pick you up from the airport."
	Play EARonaut at least 10 minutes twice this week with a female talker in quiet. Adjust the noise bar to 0.	"This game is important because it is developing your auditory memory, which is your ability to keep words in your mind as you listen." "Female voices are particularly difficult to hear in background noise, even when you have optimal hearing aids. Try playing a few rounds of EARonaut with the noise bar set to quiet. Over the next rounds, gradually increase the level of background noise and try to determine the maximum of noise that can be present during the game and yet allow you still to hear the female voice speak the words. You might find that you are using a lot more 'mental effort' when you are listening in noise than when you are listening in quiet. This is a very natural phenomenon."
Week 2	Play EARonaut at least 10 minutes twice this week with a male talker with the noise adjusted to your preference.	"Try playing the game in both quiet and with noise. You will likely find that you are much more relaxed and confident when

		you are playing the game in quiet than when you are playing the game in high noise. When a person with hearing loss spends time listening in a noisy room, the person must expand an increased amount of 'mental effort' to understand the meaning of words than when listening in a quiet room. The reason why you may sometimes feel exhausted after having had to listen in a noisy room is that you have been forced to expend an inordinate amount of mentall effort to understand what people were saying."
	Play pEARl Crunch at least 10 minutes twice this week with a female talker in quiet.	"Female voices are often harder to hear than male voices. This is because women tend to have voices that are higher in pitch than those of men, and people with hearing loss often lose their ability to hear high pitches. When you have finished training with the female voices, you might want to play one more time, but with the male voices. You will likely find that you are able to play the game much faster and with less perceptual effort, or mental energy."
Week 3	Play FarmEAR in the Dell at least 10 minutes twice this week with a male talker.	"FarmEAR in the Dell may help you learn to recognize common, everyday words more easily. This is important because during everyday conversations, we tend to speak and hear many of the same words over and over again. For example during a typical day, you are likely to hear someone say the words *girl, boy, table,* and *chair*. These are all examples of 'frequently spoken words'." "You may find that some of the pictures are a little ambiguous and that it takes some thought to match the word that you hear with the pictures that you see. This ambiguity is intentional. Research has shown that when listening tasks which force the brain to focus on meaning and it requires the brain to think of different possibilities, learning occurs more quickly."

		"If the noise seems to be getting louder, that means that you are actually getting better at listening in noise because the better you do, the more noise is introduced into the training task. The game is programmed to have more noise after you make consecutive correct answers and less noise after you make consecutive incorrect answers."
	Play MountainEAR about 10 minutes twice this week with a female talker.	"If the noise seems to be getting louder, that means that you are actually getting better at listening in noise because the better you do, the more noise is introduced into the training task. The game is programmed to have more noise after you make consecutive correct answers and less noise after you make consecutive incorrect answers." "MountainEAR teaches you to recognize words quickly, which is important when you are listening to connected speech. The typical talker of English speaks between 110 and 150 words per minute. This means that you must have good 'auditory processing speed' to understand speech, which is the brain's ability to quickly process the meaning of words."
Week 4	Play Treasure EARland at least 10 minutes twice this week with a male talker.	"Treasure EARland may help you listen more effectively in the presence of background noise because it forces you to pay attention to the target word and ignore competing speech." "If the noise seems to be getting louder, that means that you are actually getting better at listening in noise because the better you do, the more noise is introduced into the training task. The game is programmed to have more noise after you make consecutive correct answers and less

		noise after you make consecutive incorrect answers."
	Play MountainEAR at least 10 minutes twice this week with a female talker.	"Sometimes you might be confused and not be able to decide which picture matches the word that you just heard. This is okay. MountainEAR will require that you make quick decisions about what you heard and sometimes this is hard to do."
Week 5	Play ShakespEARe at least 10 minutes twice this week with a female talker.	"ShakespEARe may help develop your ability to remember the details of a story. It exercises your 'auditory memory', which is the brain's ability to hold in memory words and sentences that you have recently heard." "At first you may have a hard time remembering which sentence came first, second, third, fourth and fifth. Try to get at least three sentences in the correct order for each paragraph."
	Play pEARl Crunch at least 10 minutes twice this week with a female talker with the noise adjusted to your preference.	"Playing pEARl Crunch in increasing amounts of noise will exercise your 'auditory attention', which is your brain's ability to focus on one auditory stimulus and ignore other auditory stimuli that are irrelevant and distracting. As you play, gradually increase the level of noise." "When background noise is present, often the first thing a person with hearing loss will notice is that word endings seem to 'disappear'." pEARl Crunch is designed to focus your attention specifically on these word endings and let you experiment with how your ears and brain respond to the presence of background noise."
Week 6	Play EARonaut at least 10 minutes twice this week with a female talker in high noise.	"Start with a softer level of noise. With every other set of new planets, bump up the noise level by an amount of your

		choosing. After you play for 10 minutes, see how much distance there is between where you first set the noise bar and your "high noise" level, which is the point on the noise bar where you reached a plateau in the level of noise you were able to tolerate."
	Play Treasure EARland at least 10 minutes twice this week with a female talker.	"One purpose of Treasure EARland is to increase your confidence in your abilities to recognize words. Research has shown that when you doubt your ability to hear words correctly, you actually don't hear them as well as when you have high confidence in your ability. The mind becomes distracted by the doubt."
Week 7	Play MountainEAR at least 10 minutes twice this week with a male talker.	MountainEAR requires that you make very quick decisions about the meaning of a word. How quickly you decide is referred to as your 'auditory processing speed.' Most people with hearing loss tend to have faster auditory processing speed with male voices than with female or child voices.
	Play EARonaut for at least 10 minutes twice this week with a child talker in quiet.	"Children often do not enunciate their words as clearly as do adults because they have more immature control of their articulators. When you have finished training with the child voices, you might play one more time, but with the female voices. You will likely find that you are able to increase the level of noise for your perceived 'high' level of noise when listening to the female voices as compared to when listening to the child's voices."
Week 8	Play Treasure EARland at least 10 minutes twice this week with a male talker.	"Even though this game is designed to develop your phoneme discrimination, which is your ability to decide whether two sounds are the same or different, it is also developing your ability to focus on the meaning of words and developing your sense of self-confidence in your listening abilities."

	Play pEARl Crunch for at least 10 minutes twice this week with a child talker in quiet. Adjust the noise bar to 0.	Children tend to speak more softly than do adults and sometimes the level of their voices become softer at the endings of words. For this reason, their speech is often difficult to understand. pEARl Crunch will exercise your ability to attend to word endings that are spoken by children.
Week 9	Play MountainEAR at least 10 minutes twice this week a child talker.	MountainEAR requires you to decide very quickly whether or not a picture matches the word spoken. The time it takes to make this kind of decision is called 'auditory processing speed.' Research has shown that people with hearing loss tend to have slower auditory processing speed when listening to children than when listening to adults because children's speech is harder to hear. MountainEAR is designed to develop your auditory processing speed.
	Play ShakespEARe at least 10 minutes twice this week with a child talker.	Listening to children's voices can sometimes be difficult because you must concentrate very hard on recognizing each word. This concentration reduces you ability to comprehend the meaning of what is being said. ShakespEARe exercises your ability to attend to the meaning of sentences, even when you must use a lot of mental energy to recognize each word the child speaks.
Week 10	Play FarmEAR in the Dell at least 10 minutes twice this week with a child talker.	"You may find that some of the pictures are a little ambiguous and that it takes some thought to match the word that you hear with the pictures that you see. This ambiguity is intentional. Research has shown that when listening tasks which force the brain to focus on meaning and it requires the brain to think of different possibilities, learning occurs more quickly." "Try to ignore the noise and pay attention to which picture matches the word you've just heard. This activity will develop

		'auditory attention', which is the brain's ability to focus on one auditory stimulus and ignore other auditory stimuli that are irrelevant and distracting."
	Play Treasure EARland at least 10 minutes twice this week with a child talker.	"You are learning to discriminate common words that occur frequently in everyday conversation. Over time, this kind of training will make listening easier for you." "Background noise will make children's voices especially difficult to discriminate and understand. This is because children tend to talk more softly than adults and because noise is especially detrimental to high pitched voices."
Week 11	Play pEARl Crunch at least 10 minutes twice this week with a child talker in high noise.	"Children's voices are often harder to hear than male voices. Many times the presence of background noise will make children's voices even harder to hear and to understand. This is because children tend to have voices that are higher in pitch than those of men, and noise is especially detrimental to hearing the high pitches. When you have finished training with the child voices, you might play one more time, but with the male voices. You will likely find that you are able to increase the level of noise for your perceived 'high' level of noise."
	Play EARonaut at least 10 minutes twice this week with a child talker in high noise.	"Start with a softer level of noise. With every other set of new planets, bump up the noise level by an amount of your choosing. After you play for 10 minutes, see how much distance there is between where you first set the noise bar and your "high noise" level, which is the point on the noise bar where you reached a plateau in the level of noise you were able to tolerate."

| Week 12 | Your choice of a game and play at least 10 minutes twice this week with a female talker.

Your choice of a game and play at least 10 minutes twice this week with a child talker. | |