

The Speech, Spatial, and Qualities of Hearing Scale (SSQ) for Parents of Children with Impaired Hearing

(Based on the adult SSQ developed by William Noble &
Stuart Gatehouse; modifications by Karyn Galvin)

Child's Name: _____ Age: _____ yrs _____ mths _____

Completed by: _____ (Mo / Fa / Other: _____)

Evaluation point: _____

Device Condition: Unilateral: Cochlear Implant Hearing Aid

Bilateral: Cochlear Implants Hearing Aids

Cochlear Implant + Hearing Aid

Right device: Type: _____ Date fitted: _____

Current usage: all day school only other: _____

Left device: Type: _____ Date fitted: _____

Current usage: all day school only other: _____

Section	Date situations list provided	Date completed	Observation period (days)	Interview type (phone/in person)	Clinician
A					
B					
C					

INFORMATION & INSTRUCTIONS FOR CLINICIAN

Background

This Scale is based on the SSQ developed for adults by William Noble (University of New England, Australia) and Stuart Gatehouse (MRC Institute of Hearing Research, Scotland) (Gatehouse & Noble (2004) *The Speech, Spatial, and Qualities of Hearing Scale*, International Journal of Audiology 43(2): 85-99; Noble & Gatehouse (2004) *Interaural asymmetry of hearing loss, SSQ disabilities, and handicap*, International Journal of Audiology 43(2): 100-114). The Scale was modified separately for parents of children with impaired hearing, for children, and for teachers by Karyn Galvin (The University of Melbourne, Australia). All appropriate aspects of the original Scale were retained; difficult or not applicable questions (such as those asking for judgements of the naturalness of sound or related to driving a car) were deleted, language was changed to suit the target respondents, and listening situations were changed to suit a child's lifestyle. Significant additions were also made. In the Scales for parents and for teachers, "pre-scale observation periods" have been included so that the child can be observed in the types of listening situations described in the Scale. In the Parent Scale, additional questions ask how often a particular listening situation occurs for the child, and how important the respondent considers it for the child to have the listening skills required in that situation.

Structure of the Scale

There are many aspects of listening with a cochlear implant or hearing aid that are not evaluated during standard speech perception testing. This Scale aims to obtain information about three areas of a child's daily functioning when listening with cochlear implant(s) and/or hearing aid(s):

- *Section A: Speech* – speech understanding in quiet, in background noise, in groups, in reverberant environments, and on the telephone.
- *Section B: Spatial Hearing* – the perception of the position, movement and distance of sound sources.
- *Section C: Qualities of Hearing* – the identification of sounds and voices, ease of listening, and segregating sounds.

In all three sections, each question begins with a description of a listening situation. For most situations, three separate questions are then asked:

- (i) How does the child perform in this situation?
- (ii) How often does this type of situation occur for the child? and
- (iii) How important is it for the child to hear in this type of situation?

Prior to completing each section of the Scale the parent will spend time observing the child's daily functioning; the length of this "pre-scale observation period" can be recorded on the cover page of the Scale.

Completing the Scale

The Scale should be completed by the parent in a face-to-face or telephone interview with the clinician. This approach helps to ensure that the questions are correctly interpreted and offers the opportunity to obtain further detailed information on the child's performance through discussion of any issues raised.

How to instruct the parent

In instructing the parent on how to complete the Scale the clinician should demonstrate how to answer the questions using the sample situation at the end of these instructions. The following points should be emphasised:

- An arrow is drawn on the ruler to indicate the number representing the child's typical listening performance in the situation described; the arrow may be positioned anywhere on the ruler.
- For most items, the ruler represents the performance range between the descriptors of "Not at all" and "Perfectly", however other terms are also employed so the ruler needs to be read carefully.
- If the child's listening performance cannot be judged, the appropriate alternative response is ticked.
 - "Would not hear it" indicates that the child cannot even hear the voice or sound they need to understand or identify in the listening situation described.
 - "Not applicable" indicates that the child does not experience the situation described (eg. a young child who does not use the telephone), therefore part (ii) is not answered.

Regarding Parts (ii) and (iii):

- The questions relate to the type of situation described, not only to the exact situation described.

The Pre-scale Observation Period

The “pre-scale observation period” is a period of days/weeks in which the parent observes specified aspects of the child’s daily functioning. At the start of the period the parent is provided with a list of the relevant listening situations and the questions they will need to answer at the end of the period. This guides the parents in their observations. The observation period is included because parents may not have considered the child’s listening performance in many of the situations described – particularly those that do not concern speech understanding – and the opportunity to observe the child and consider the questions over a reasonable period is likely to result in more accurate responses to the Scale items. A one- to two-week observation period would be required for each section of the Scale, although this depends upon the individual circumstances of the parent and child. The parent would complete the relevant section of the Scale before beginning the observation period for the next section.

How to instruct the parent

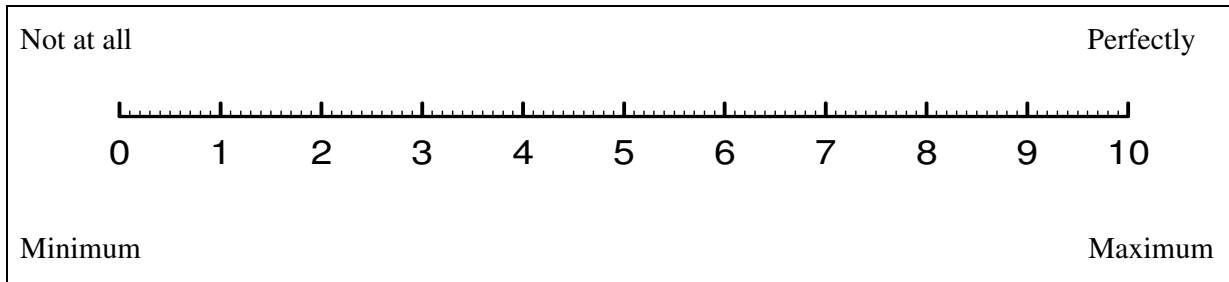
In instructing the parent prior to each pre-scale observation period the clinician should:

- Explain the purpose of the observation period; i.e., to inform the parent of the types of listening situations for which they will be asked to rate the child’s performance and to provide the opportunity to observe their child in these situations before completing the Scale.
- Define the length of the observation period.
- Provide the relevant list of listening situations (which appear at the start of each section), and review each situation to ensure understanding.
- Review the questions that will be asked about each listening situation, emphasising that the frequency of occurrence (part ii) and importance (part iii) questions relate to the type of listening situation, i.e., situations similar to, but not necessarily exactly the same as, the situation described.
- Emphasise that the aim is for the parent to observe the child’s typical listening performance in the situations described, to note how often the situations occur, and to consider the importance of hearing in these situations.
- Explain that it is vital not to help or train the child but to just observe.

Sample Listening Situation & Questions

You and your child are outside. You are talking at a normal volume to your child from a distance of 5 to 7m. Can your child follow what you're saying?

(i)



Would not hear it

Do not know

Not applicable

(ii) How often does this type of situation occur for your child, in which he/she is trying to follow someone speaking from this distance?

Very often (4 or more times in a week)

Often (1 to 3 times in a week)

Not often (1 to 2 times in a month)

(iii) How important do you think it is for your child to have, or to develop, the listening skills required for this type of situation?

Very important

Important

Only a little bit important

Not important

Section A: Speech

Listening Situations for Observation Period

The following listening situations are presented in the section of the Scale you will complete following this observation period. The purpose of the observation period is to help you answer the questions in the Scale. For each situation below you will need to consider the following:

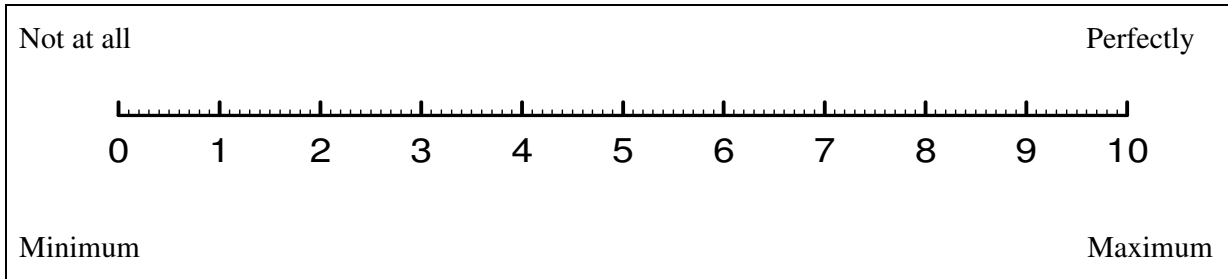
- How well is your child able to perform in this situation,
- If this type of situation occurs for your child, how often does it occur, and
- How important do you think it is for your child to have, or to develop, the listening skills required for this type of situation.

1. You are talking with your child and there is a TV on in the same room. Without turning the TV down, can your child follow what you're saying?
2. You are talking with your child in a quiet, carpeted lounge-room. Can your child follow what you're saying?
3. Your child is in a group of about five people, sitting round a table. It is an otherwise quiet place. Your child can see everyone else in the group. Can your child follow the conversation?
4. Your child is in a group of about five people, sitting round a table. It is a noisy room, such as a busy restaurant or large family gathering at home. Your child can see everyone else in the group. Can your child follow the conversation?
5. You are talking with your child. There is a continuous background noise, such as a fan or running water. Can your child follow what you say?
6. Your child is in a group of about five people, sitting round a table. It is a noisy room, such as a busy restaurant or large family gathering at home. Your child cannot see everyone else in the group. Can your child follow the conversation?
7. You are talking to your child in a place where there are a lot of echoes, such as a school assembly hall or indoor swimming pool. Can your child follow what you say?
8. You are talking to your child in a room in which there are many other people talking. Can your child follow what you say?
9. Can your child easily have a conversation with a familiar person on the telephone?

Section A: Speech

1. You are talking with your child and there is a TV on in the same room. Without turning the TV down, can your child follow what you're saying?

(i)



Would not hear it

Do not know

Not applicable

(ii) How often does this type of situation occur for your child, in which he/she needs to follow what someone is saying with the TV on in the same room?

Very often (4 or more times in a week)

Often (1 to 3 times in a week)

Not often (1 to 2 times in a month)

(iii) How important do you think it is for your child to have, or to develop, the listening skills required in this type of situation?

Very important

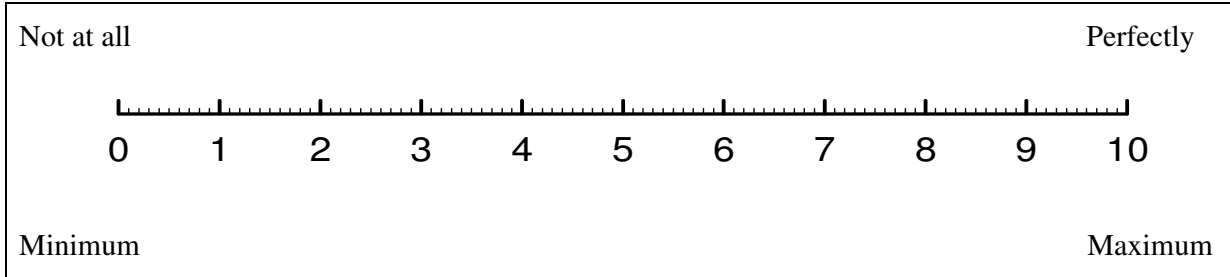
Important

Only a little bit important

Not important

2. You are talking with your child in a quiet, carpeted lounge-room. Can your child follow what you're saying?

(i)



Would not hear it

Do not know

Not applicable

(ii) How often does this type of situation occur for your child, in which he/she is trying to follow a speaker in a quiet room without reverberation (echoes)?

Very often (4 or more times in a week)

Often (1 to 3 times in a week)

Not often (1 to 2 times in a month)

(iii) How important do you think it is for your child to have, or to develop, the listening skills required for this type of situation?

Very important

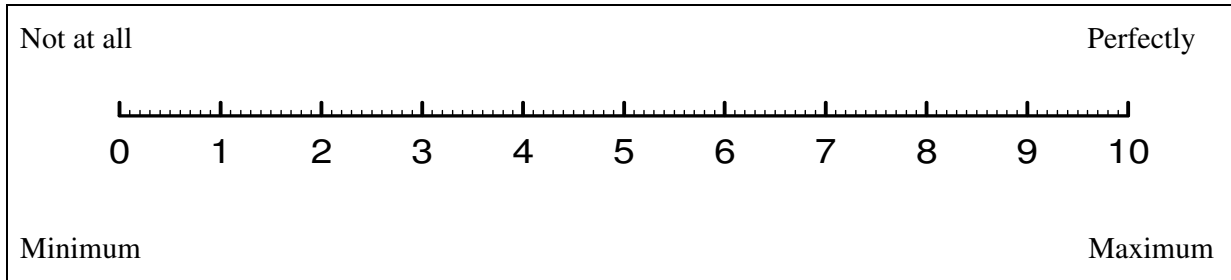
Important

Only a little bit important

Not important

3. Your child is in a group of about five people, sitting round a table. It is an otherwise quiet place. Your child can see everyone else in the group. Can your child follow the conversation?

(i)



Would not hear it

Do not know

Not applicable

(ii) How often does this type of group conversation in a quiet place occur for your child?

Very often (4 or more times in a week)

Often (1 to 3 times in a week)

Not often (1 to 2 times in a month)

(iii) How important do you think it is for your child to have, or to develop, the listening skills required for this type of situation?

Very important

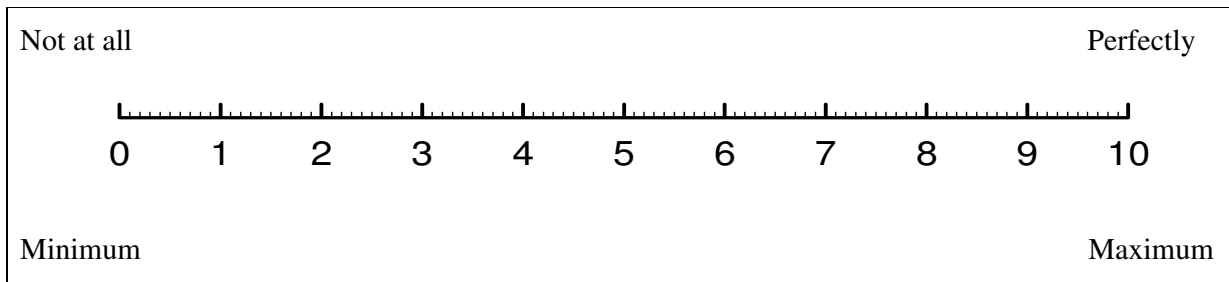
Important

Only a little bit important

Not important

4. Your child is in a group of about five people, sitting round a table. It is a noisy room, such as a busy restaurant or large family gathering at home. Your child can see everyone else in the group. Can your child follow the conversation?

(i)



Would not hear it

Do not know

Not applicable

(ii) How often does this type of group conversation in a noisy room occur for your child?

Very often (4 or more times in a week)

Often (1 to 3 times in a week)

Not often (1 to 2 times in a month)

(iii) How important do you think it is for your child to have, or to develop, the listening skills required for this type of situation?

Very important

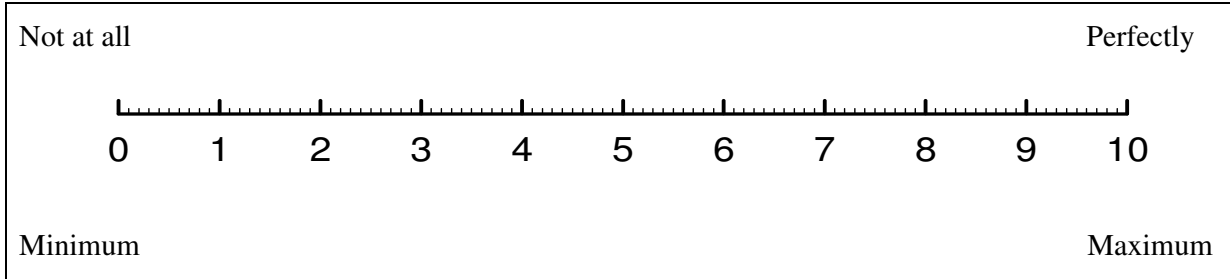
Important

Only a little bit important

Not important

5. You are talking with your child. There is a continuous background noise, such as a fan or running water. Can your child follow what you say?

(i)



Would not hear it

Do not know

Not applicable

(ii) How often does this type of situation occur for your child, in which he/she is trying to follow a speaker in a continuous background noise?

Very often (4 or more times in a week)

Often (1 to 3 times in a week)

Not often (1 to 2 times in a month)

(iii) How important do you think it is for your child to have, or to develop, the listening skills required for this type of situation?

Very important

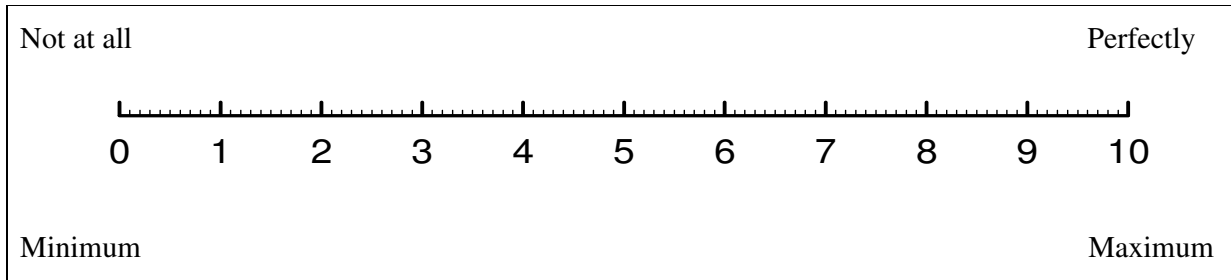
Important

Only a little bit important

Not important

6. Your child is in a group of about five people, sitting round a table. It is a noisy room, such as a busy restaurant or large family gathering at home. Your child cannot see everyone else in the group. Can your child follow the conversation?

(i)



Would not hear it

Do not know

Not applicable

(ii) How often does this type of group conversation in a noisy room occur for your child?

Very often (4 or more times in a week)

Often (1 to 3 times in a week)

Not often (1 to 2 times in a month)

(iii) How important do you think it is for your child to have, or to develop, the listening skills required for this type of situation?

Very important

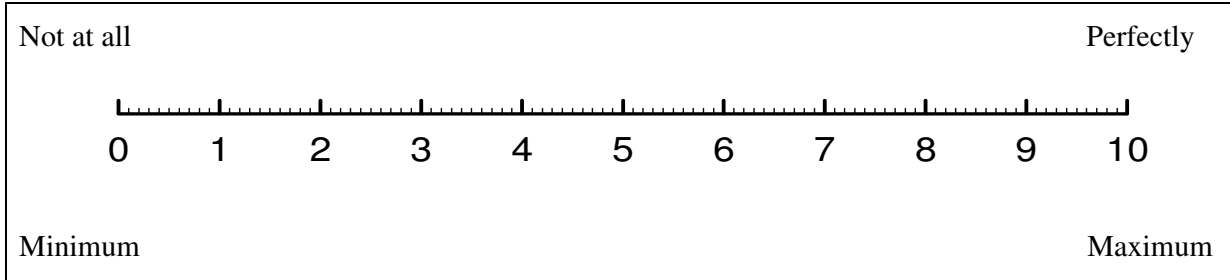
Important

Only a little bit important

Not important

7. You are talking to your child in a place where there are a lot of echoes, such as a school assembly hall or indoor swimming pool. Can your child follow what you say?

(i)



Would not hear it

Do not know

Not applicable

(ii) How often does this type of situation occur for your child, in which he/she is trying to follow a speaker in a place with echoes?

Very often (4 or more times in a week)

Often (1 to 3 times in a week)

Not often (1 to 2 times in a month)

(iii) How important do you think it is for your child to have, or to develop, the listening skills required for this type of situation?

Very important

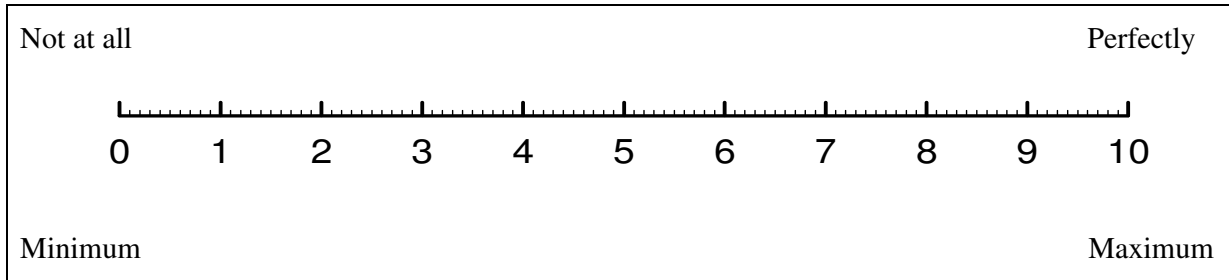
Important

Only a little bit important

Not important

8. You are talking to your child in a room in which there are many other people talking. Can your child follow what you say?

(i)



Would not hear it

Do not know

Not applicable

(ii) How often does this type of situation occur for your child, in which he/she is trying to follow a speaker in a room with lots of other people talking?

Very often (4 or more times in a week)

Often (1 to 3 times in a week)

Not often (1 to 2 times in a month)

(iii) How important do you think it is for your child to have, or to develop, the listening skills required in this type of situation?

Very important

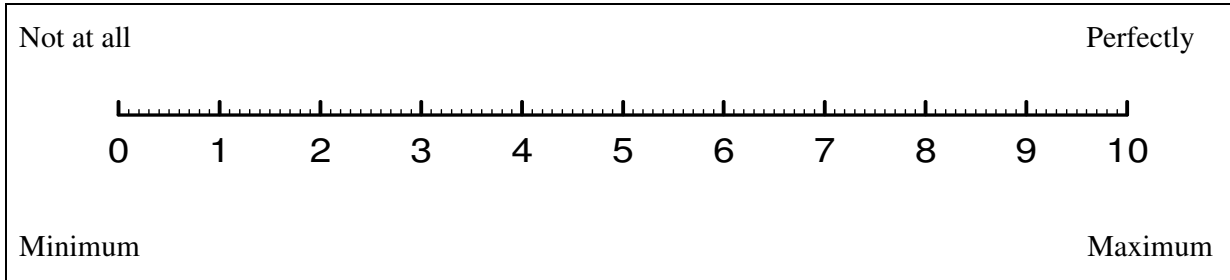
Important

Only a little bit important

Not important

9. Can your child easily have a conversation with a familiar person on the telephone?

(i)



Would not hear it

Do not know

Not applicable

(ii) How often does this situation occur for your child, in which he/she is trying to have a conversation on the telephone with a familiar person?

Very often (4 or more times in a week)

Often (1 to 3 times in a week)

Not often (1 to 2 times in a month)

(iii) How important do you think it is for your child to have, or to develop, the listening skills required for this type of situation?

Very important

Important

Only a little bit important

Not important

Section B: Spatial Hearing

Listening Situations for Observation Period

The following listening situations are presented in the section of the Scale you will complete following this observation period. The purpose of the observation period is to help you answer the questions in the Scale. For each situation below you will need to consider the following:

- How well is your child able to perform in this situation,
- If this type of situation occurs for your child, how often does it occur, and
- How important do you think it is for your child to have, or to develop, the listening skills required for this type of situation.

1. Your child is outdoors in an unfamiliar place. A loud constant noise, such as from a lawnmower, aeroplane or power tool, can be heard. The source of the sound can't be seen. Can your child tell right away where the sound is coming from?

2. Your child is sitting around a table with several people. Your child cannot see everyone. Can your child tell where any person is as soon as they start speaking?

3. Your child is sitting in between yourself and another person. One of you starts to speak. Can your child tell right away whether it is the person on their left or their right who is speaking, without having to look?

4. You and your child are in different rooms at home. It is quiet. If your child hears you call out their name, will he/she know where in the house you are?

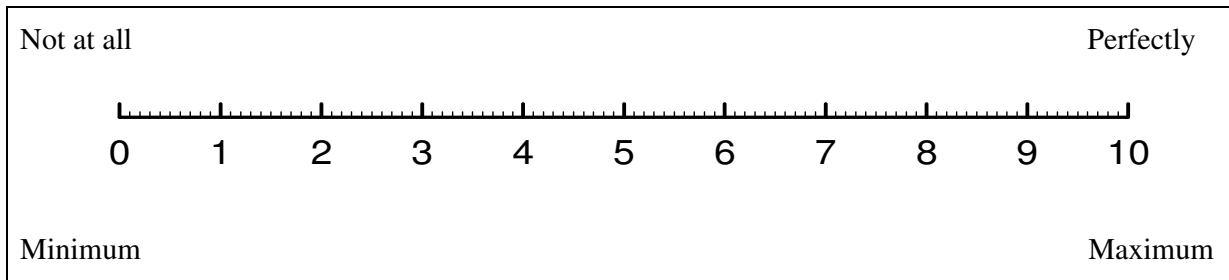
5. Your child is outside. A dog barks loudly. Can your child tell immediately where it is, without having to look?

6. Your child is standing on the footpath of a busy street. Can your child hear right away which direction a bus or truck is coming from before they see it?

Section B: Spatial Hearing

1. Your child is outdoors in an unfamiliar place. A loud constant noise, such as from a lawnmower, aeroplane or power tool, can be heard. The source of the sound can't be seen. Can your child tell right away where the sound is coming from?

(i)



Would not hear it

Do not know

Not applicable

(ii) How often does this type of situation occur for your child, in which it would be useful to be able to tell where a sound is coming from when outside?

Very often (4 or more times in a week)

Often (1 to 3 times in a week)

Not often (1 to 2 times in a month)

(iii) How important do you think it is for your child to have, or to develop, the listening skills required for this type of situation?

Very important

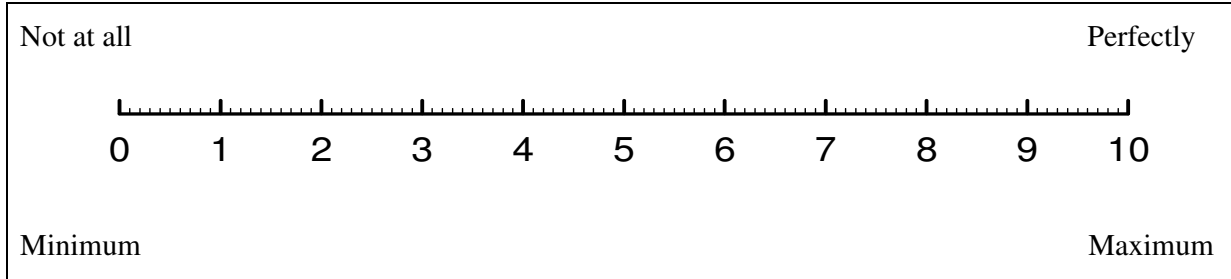
Important

Only a little bit important

Not important

2. Your child is sitting around a table with several people. Your child cannot see everyone. Can your child tell where any person is as soon as they start speaking?

(i)



Would not hear it

Do not know

Not applicable

(ii) How often does this type of situation occur for your child, in which it would be useful to know where a speaker is as soon as they start speaking?

Very often (4 or more times in a week)

Often (1 to 3 times in a week)

Not often (1 to 2 times in a month)

(iii) How important do you think it is for your child to have, or to develop, the listening skills required for this type of situation?

Very important

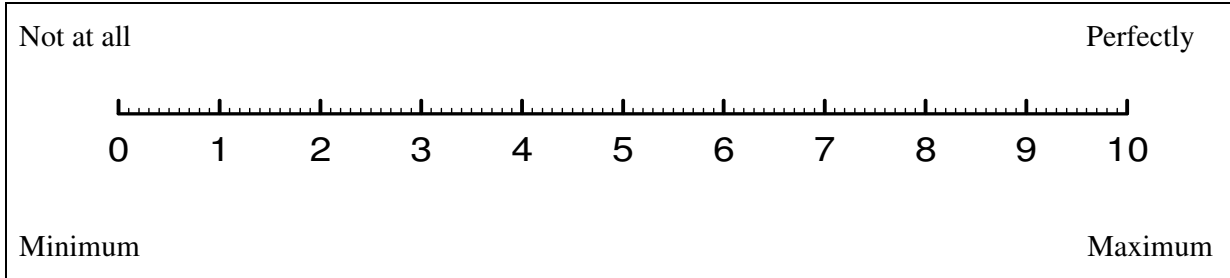
Important

Only a little bit important

Not important

3. Your child is sitting in between yourself and another person. One of you starts to speak. Can your child tell right away whether it is the person on their left or their right who is speaking, without having to look?

(i)



Would not hear it

Do not know

Not applicable

(ii) How often does this type of situation occur for your child, in which it would be useful to locate the speaker as being on the left or on the right?

Very often (4 or more times in a week)

Often (1 to 3 times in a week)

Not often (1 to 2 times in a month)

(iii) How important do you think it is for your child to have, or to develop, the listening skills required for this type of situation?

Very important

Important

Only a little bit important

Not important

4. You and your child are in different rooms at home. It is quiet. If your child hears you call out their name, will he/she know where in the house you are?

(i)



Would not hear it

Do not know

Not applicable

(ii) How often does this type of situation occur for your child, in which he/she needs to know from which room a someone is calling?

Very often (4 or more times in a week)

Often (1 to 3 times in a week)

Not often (1 to 2 times in a month)

(iii) How important do you think it is for your child to have, or to develop, the listening skills required for this type of situation?

Very important

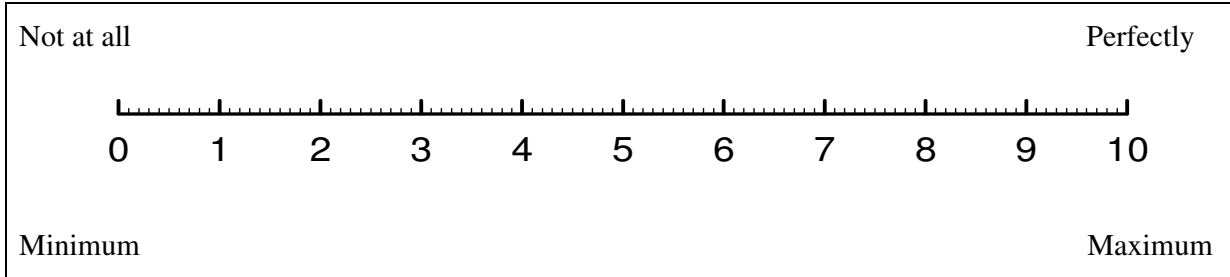
Important

Only a little bit important

Not important

5. Your child is outside. A dog barks loudly. Can your child tell immediately where it is, without having to look?

(i)



Would not hear it

Do not know

Not applicable

(ii) How often does this type of situation occur for your child, in which it would be useful to know where the source was for this type of sound?

Very often (4 or more times in a week)

Often (1 to 3 times in a week)

Not often (1 to 2 times in a month)

(iii) How important do you think it is for your child to have, or to develop, the listening skills required for this type of situation?

Very important

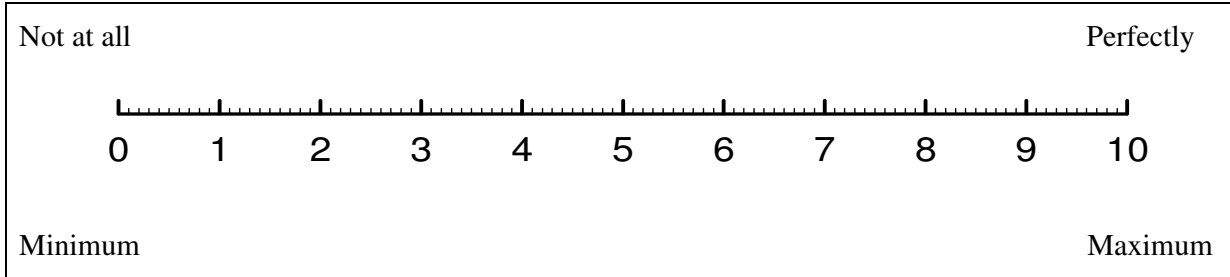
Important

Only a little bit important

Not important

6. Your child is standing on the footpath of a busy street. Can your child hear right away which direction a bus or truck is coming from before they see it?

(i)



Would not hear it

Do not know

Not applicable

(ii) How often does this type of situation occur for your child, in which it would be useful to know from which direction a vehicle was approaching?

Very often (4 or more times in a week)

Often (1 to 3 times in a week)

Not often (1 to 2 times in a month)

(iii) How important do you think it is for your child to have, or to develop, the listening skills required for this type of situation?

Very important

Important

Only a little bit important

Not important

Section C: Qualities of Hearing

Listening Situations for Observation Period

The following listening situations are presented in the section of the Scale you will complete following this observation period. The purpose of the observation period is to help you answer the questions in the Scale. For each situation below you will need to consider the following:

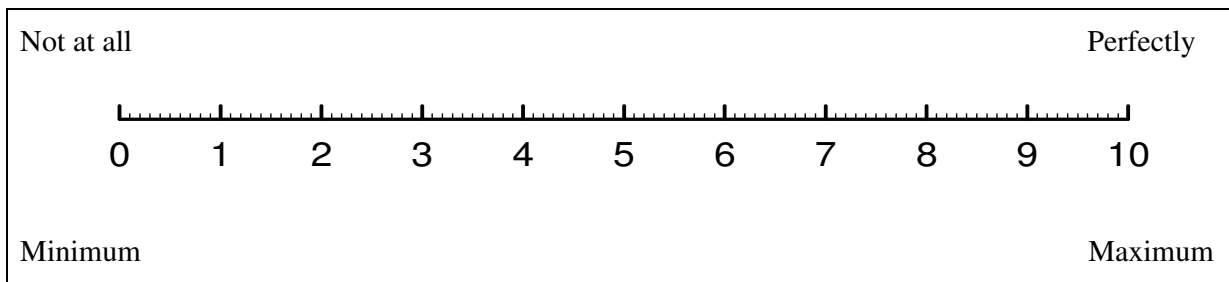
- How well is your child able to perform in this situation,
- If this type of situation occurs for your child, how often does it occur, and
- How important do you think it is for your child to have, or to develop, the listening skills required for this type of situation.

1. Think about when there are two noises in or around the home at once, for example, water running into the bath and a radio playing, OR a truck driving past and the sound of knocking at the door. Is your child able to identify the two separate sounds?
2. You are in a room with your child and music is playing. Will your child be aware of your voice if you start speaking? Note that the child does not have to understand what you say.
3. Can your child recognise family members or other very familiar people by the sound of each one's voice without seeing them?
4. Can your child distinguish between different pieces of familiar music? Note that producing relevant words or movements can indicate recognition.
5. Can your child tell the difference between sounds that are somewhat similar, for example, a car versus a bus, OR water boiling in a pot versus food cooking in a frypan?
6. Can your child easily judge another person's mood from the sound of their voice?
7. Does your child have to put in a lot of effort to hear what is being said in conversation with others?
8. Can your child easily ignore other sounds when trying to listen to something?

Section C: Qualities of Hearing

1. Think about when there are two noises in or around the home at once, for example, water running into the bath and a radio playing, OR a truck driving past and the sound of knocking at the door. Is your child able to identify the two separate sounds?

(i)



Would not hear them

Do not know

Not applicable

(ii) How often does this type of situation occur for your child, in which it would be useful to identify two separate sounds?

Very often (4 or more times in a week)

Often (1 to 3 times in a week)

Not often (1 to 2 times in a month)

(iii) How important do you think it is for your child to have, or to develop, the listening skills required for this type of situation?

Very important

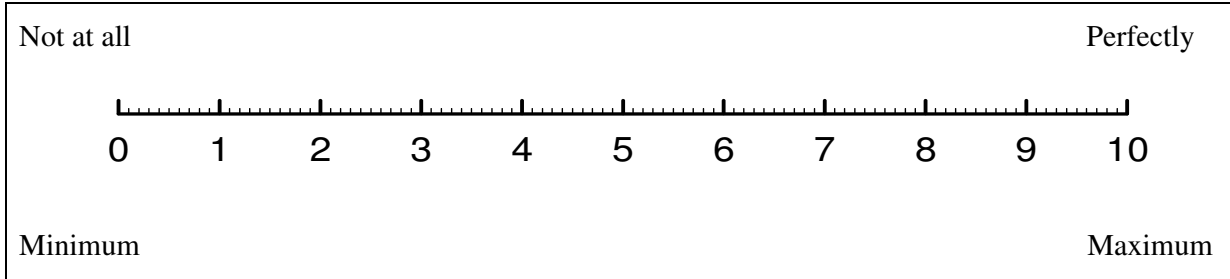
Important

Only a little bit important

Not important

2. You are in a room with your child and music is playing. Will your child be aware of your voice if you start speaking? Note that the child does not have to understand what you say.

(i)



Would not hear it

Do not know

Not applicable

(ii) How often does this type of situation occur for your child, in which he/she is already listening to a sound, but needs to be aware when someone starts speaking?

Very often (4 or more times in a week)

Often (1 to 3 times in a week)

Not often (1 to 2 times in a month)

(iii) How important do you think it is for your child to be able to have, or to develop, the listening skills required for this type of situation?

Very important

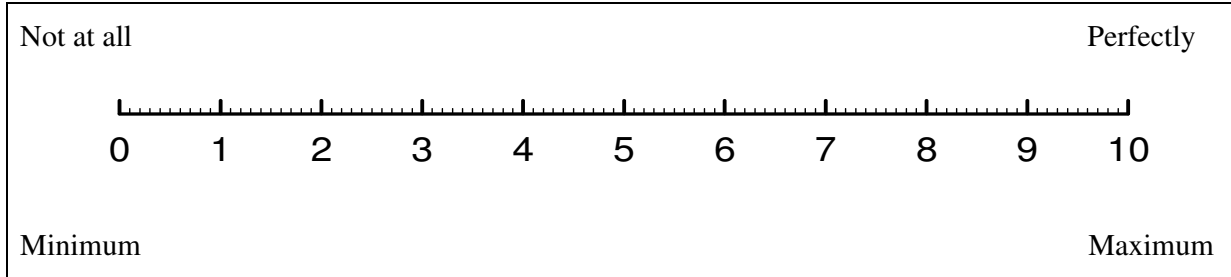
Important

Only a little bit important

Not important

3. Can your child recognise family members or other very familiar people by the sound of each one's voice without seeing them?

(i)



Would not hear it

Do not know

Not applicable

(ii) How often does this situation occur for your child, in which it would be useful to recognise people by the sound of their voice?

Very often (4 or more times in a week)

Often (1 to 3 times in a week)

Not often (1 to 2 times in a month)

(iii) How important do you think it is for your child to have, or to develop, the listening skills required for this situation?

Very important

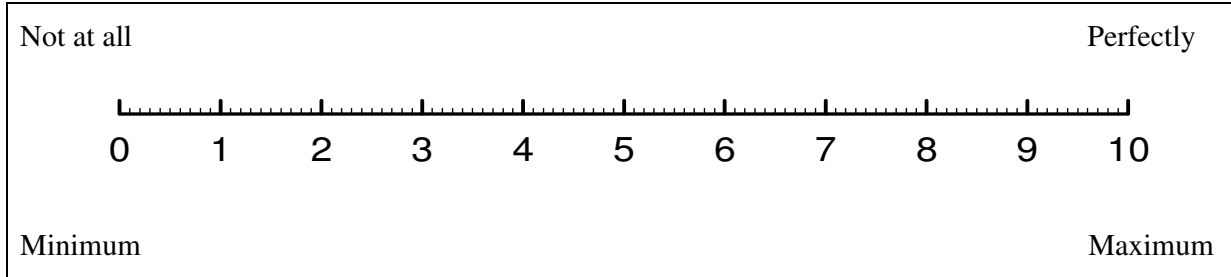
Important

Only a little bit important

Not important

4. Can your child distinguish between different pieces of familiar music? Note that producing words or movements relevant to a song can indicate recognition.

(i)



Would not hear it

Do not know

Not applicable

(ii) How often does this type of situation occur for your child, in which it would be useful (or enjoyable) to be able to distinguish between pieces of music?

Very often (4 or more times in a week)

Often (1 to 3 times in a week)

Not often (1 to 2 times in a month)

(iii) How important do you think it is for your child to have, or to develop, the listening skills required for this type of situation?

Very important

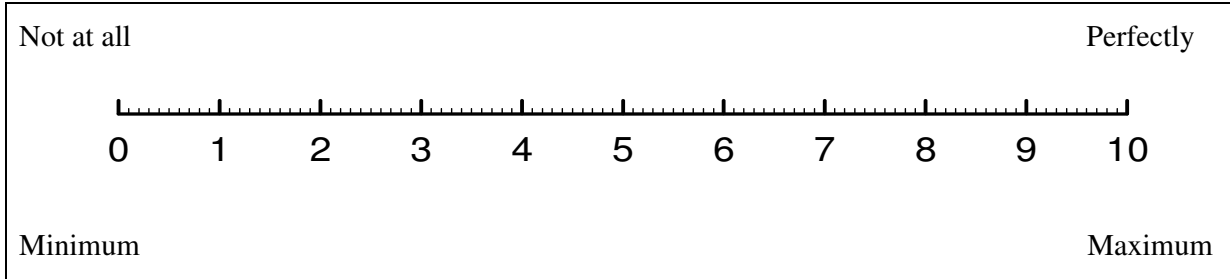
Important

Only a little bit important

Not important

5. Can your child tell the difference between sounds that are somewhat similar, for example, a car versus a bus, OR water boiling in a pot versus food cooking in a frypan?

(i)



Would not hear it

Do not know

Not applicable

(ii) How often does this type of situation occur for your child, in which it would be useful to be able to tell the difference between sounds that are somewhat similar?

Very often (4 or more times in a week)

Often (1 to 3 times in a week)

Not often (1 to 2 times in a month)

(iii) How important do you think it is for your child to have, or to develop, the listening skills required for this situation?

Very important

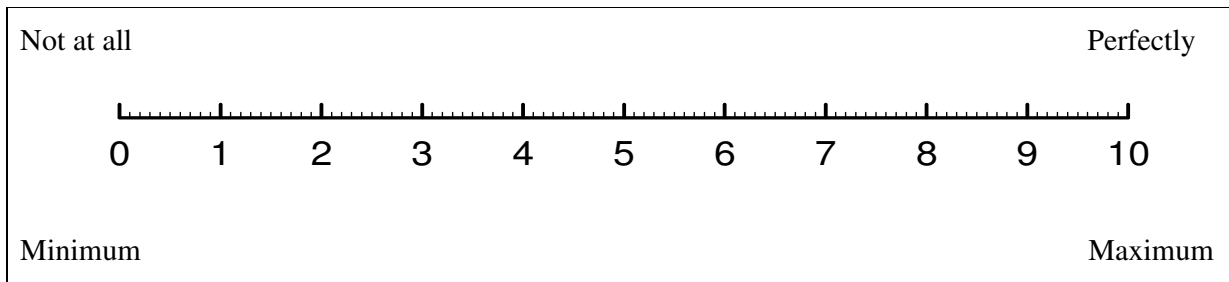
Important

Only a little bit important

Not important

6. Can your child easily judge another person's mood from the sound of their voice?

(i)



Would not hear it

Do not know

Not applicable

(ii) How often does this type of situation occur for your child, in which it would be useful to judge mood from a person's voice?

Very often (4 or more times in a week)

Often (1 to 3 times in a week)

Not often (1 to 2 times in a month)

(iii) How important do you think it is for your child to have, or to develop, the listening skills required for this situation?

Very important

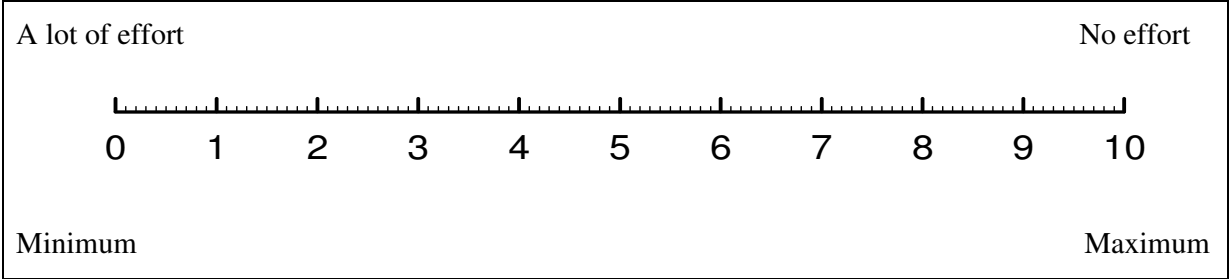
Important

Only a little bit important

Not important

7. Does your child have to put in a lot of effort to hear what is being said in conversation with others?

(i)



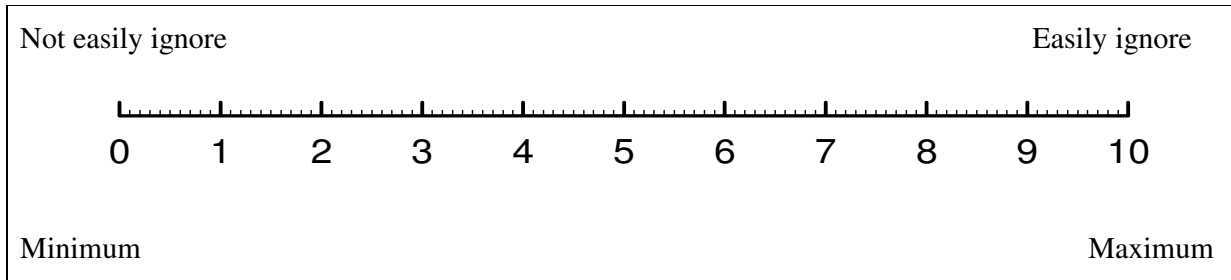
Would not hear it

Do not know

Not applicable

8. Can your child easily ignore other sounds when trying to listen to something?

(i)



Would not hear it

Do not know

Not applicable

(ii) How often does this type of situation occur for your child, in which it would be useful to ignore another sound in order to listen to something?

Very often (4 or more times in a week)

Often (1 to 3 times in a week)

Not often (1 to 2 times in a month)

(iii) How important do you think it is for your child to have, or to develop, the listening skills required in this type of situation?

Very important

Important

Only a little bit important

Not important