ORAL LANGUAGE OF HEARING IMPAIRED ADOLESCENTS: PHONOAUDIOLOGICAL EVALUATION AND TEACHERS REPORT

ABSTRACT

Purpose: to characterize the language of oralized hearing impaired adolescents attending regular school, as well as the perception of the teacher about this student’s communication. Methods: sample of spontaneous speech of adolescents with pre-linguistic severe to profound hearing loss and interview with their teachers. Results: the main difficulties presented by individuals in clinical assessment were concerning to the abstract language and speech intelligibility; teacher reports were in relation to argumentation in written tests and conversation with more than one person. Conclusion: despite the hearing loss that such individuals present, they have obtained a good and effective communication performance.

KEYWORDS: Hearing Loss; Adolescent; Language

INTRODUCTION

The language changes during adolescence\(^1\),\(^2\). Although adolescence is not easy to define, it considers several points that manifest in this stage of life. We can say that it begins when one is eleven and it ends when one is about twenty. The transition between childhood to an adult’s life involves biological, psychological and social changes\(^3\).

The adolescent begins to comprehend better subjective aspects and is capable of using words with multiple meanings with figurative speech and becomes competent of infer unspoken content. He is capable of abstraction and logical reasoning. He acquires metalinguistic skills, which means, he is capable of using language to speak and think about itself\(^2\).

Adolescence is a development stage with significant changes in interpersonal relations too\(^4\); a period with conflicts and emotional instability. To the impaired adolescent, this phase is even more disturbed due to its difficulties in communication and social insertion\(^5\). Difficulties in communication can damage the adolescent’s development. Also they can be the origin of aggressive and inadequate behaviour because of the difficulties on interaction with the environment\(^6\). The profound pre-linguistic deafness may intensify bio psychological and social conflicts that one can be through\(^7\).

Any hearing loss can bring great difficulties besides the hearing alteration\(^8\). Hearing loss is characterized by the sensorial privation, and, its consequences interfere in linguistics, emotional, educational, social and cultural aspects\(^9\). Audition is one of the main instruments for language acquisition; it helps in interaction with the environment, being a requirement for the child’s global development\(^10\). It’s through audition, that the oral communication becomes possible. The sensorial privation imposed by the hearing loss does not only interfere in oral communication effectiveness, but it also increases the chances of a language disorder\(^11\). The person who presents a hearing loss, even a slight one, may have severe consequence in his/hers development. If one is not properly exposed to sounds, words and

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the way they are organized, one will hardly learn them adequate, which can bring phonetic, phonological and syntax difficulties in many deaf people. We can infer the same from semantic and lexical aspects. The adequate and systematic usage of hearing aids has a determinant role in verbal-oral language, in lecture and academic skills. The usage of hearing aids is, many times, interrupted or damaged in adolescence. In this phase, adolescents feel the urge to be accepted by others and belong to the group. The usage of hearing aids implies in expose the hearing loss, which can lead to exclusion from the group. Face this difference in adolescence can be something very difficult. However, there are a lot of adolescents who do not give up in using the hearing aid, considering its benefits, even though it makes them look aesthetically different.

People with hearing loss have trouble in writing, reading, abstraction, memorizing and communicating. To the student who has hearing loss, the reading skill acquisition is hard because of the sensorial privation. The language plays an important role between students, teachers and the school itself. The difficulties in oral language, that usually come with hearing loss, can deflect in writing and reading acquisition process. The biggest hearing loss, the worst performance in communication. The act of speaking or writing adequately covers the ability to suit the linguistic rules and to use language appropriately to produce the desired effect in a given situation. Orality and literacy are conceived as interactive and complementary activities in social and cultural practices. The interactions between subject and environment are essential to the cognitive development. A new knowledge acquisition requires intra and interpersonal interaction, in a process that can be empowered by the educator. So, even a small difficulty in language can bring a lot of losses in one’s development, especially in an adolescent.

Due to the lack of papers that deal with language and impaired adolescents and its relevance to the social and scholar inclusion, this paper aims to describe the language of oralized impaired adolescents that go to regular school, as well as the teacher’s perception about this student’s way of communicate.

METHODS

This project was submitted to an ethics committee and it was approved under the number 026. All people involved in this study signed a free and enlightened term, according to the Conselho Nacional de Saúde rules.

We selected people according to this profile: adolescent, has severe or profound pre-linguistic hearing loss (we are following Lloyd and Kaplan, 1978 classification), oralized and student of a regular school. The study group was composed by nine adolescents, four females and five males, aged between 12 and 17 years. Three males and a female presented severe bilateral hearing loss and the other five (two females and three males) presented profound bilateral hearing loss.

All of them were under phonaudiological therapy with oralism approach. The beginning of the therapy was from 8 to 13 years before this study (average: 10.7 years). The beginning of the usage of bilateral hearing aids was from 7 to 15 years before the study. Criterion for exclusion: non-systematic usage of the hearing aid, lack of matriculation in regular school and neurological issues chart.

In this work we’ve collected samples of spontaneous speech to the language evaluation with a recorder in MD media, with G protection equipment, 15 minutes duration and videos with S-VHS M9000 model, about 20 minutes long.

The recordings were done with three interlocutors: researcher, evaluated adolescent and his/hers phonaudiological therapist. The analysis of the recordings were done by at least two evaluators: Edinizis Belusi de Melo and Thais Regina Monteiro, with the wariness of consulting a third evaluator, Vera Lúcia Garcia, when there was some divergence in the data analysis. A protocol was elaborated (Annex 1) to the oral language evaluation, specific for impaired adolescents, based on Chiari (1983), Boéchat (1992) e Pegoraro-Krook (1995). This protocol was used for description and analysis of the performance observed in the recordings.

Among the hearing skills, we sought to recognize the capacity of hearing and the communicative strategies used to comprehend language. Therefore, in Table 1, the item “Listening comprehension” refers to the capacity of vocabulary, syntax and sentences comprehension through audition; the item “Communicative strategies usage” is related to resources that impaired people, in this case, use to comprehend oral communicative demands. The item “Syntax” is related to the kind and extension of sentences, and the grammatical meaning of words. The item “Metalanguage usage” refers to usage of slangs, ambiguous sentences, figurative language, which are very common in a adolescents life. The item “Vocabulary” refers to the correct usage of vocabulary and lexicon. The paralinguistic aspects analyzed are related in the item “Fluency” and “Speech intelligibility”. The pragmatic aspects were analyzed in the “Conversational topics” of speech and make reference to one’s capacity of initiating.
Wilcoxon’s test was applied and Spearman’s linear correlation to verify the proportion of communicative and oral linguistic performance and the one described by the teacher, and also, to determine the existence of association between those performances. The level of significance used was 5%.

RESULTS

The results obtained in phonoaudiological evaluation are in Table 1, the results originating from teacher’s interviews are in Tables 2 and 3. The comparison between impaired adolescents is in Table 4.

All the impaired adolescents with a profound hearing loss provided an adequate communicative and oral linguistic performance in at least 8 of 9 evaluated aspects (Table 1). None of the impaired adolescents presented a performance with significant alterations (Table 1, item IV).

When it comes to teacher’s perception of communicative skills of their impaired students, we could see that all the interviewed answered that their students made themselves clear while speaking, showing that they could comprehend and answer properly when asked (Tables 2 and 3).

In Table 4, we can see that the adequacy proportion of the performance in used procedures is not different. Therefore, it was not possible to determinate linear associations between impaired adolescents’ response.

Generally, the impaired adolescents had satisfactory performance, because they showed 56% of adequate performance in phonoaudiological observation and 74% of their teacher’s report (Table 4), demonstrating the communicative efficiency in the environment they are in.
Table 1 – Performance of impaired adolescents in language evaluation

<table>
<thead>
<tr>
<th>Individuals</th>
<th>Severe hearing loss</th>
<th>Profound hearing loss</th>
<th>Adequate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Listening comprehension</td>
<td>I</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Communicative strategies usage</td>
<td>I</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Syntax</td>
<td>I</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Metalanguage usage</td>
<td>I</td>
<td>II</td>
<td>I</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>I</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Fluency</td>
<td>I</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Speech intelligibility</td>
<td>I</td>
<td>I</td>
<td>II</td>
</tr>
<tr>
<td>Conversational topics</td>
<td>I</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Communicative function</td>
<td>I</td>
<td>I</td>
<td>I</td>
</tr>
</tbody>
</table>

Note: I: Adequate performance; II: Mild inadequate performance; III: Moderate inadequate performance; IV: Performance with significant alterations No.: Number; %: Percentage of subjects with adequate performance.

Table 2 – Communicative performance of impaired adolescents according teachers: performance analysis by questions

<table>
<thead>
<tr>
<th>Questions</th>
<th>Total adequate responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Is understood?</td>
<td>9</td>
</tr>
<tr>
<td>2. Demonstrates understanding?</td>
<td>9</td>
</tr>
<tr>
<td>3. Use listening for understanding?</td>
<td>9</td>
</tr>
<tr>
<td>4. Use speech reading for understanding?</td>
<td>8</td>
</tr>
<tr>
<td>5. Use natural gestures to communication for understanding?</td>
<td>9</td>
</tr>
<tr>
<td>6. Give accurate information?</td>
<td>6</td>
</tr>
<tr>
<td>7. Change the subject adequately?</td>
<td>7</td>
</tr>
<tr>
<td>8. Answers coherently?</td>
<td>9</td>
</tr>
<tr>
<td>9. Question important things to continue the conversation?</td>
<td>5</td>
</tr>
<tr>
<td>10. Follows conversation with a person?</td>
<td>9</td>
</tr>
<tr>
<td>11. Follows conversation with several people?</td>
<td>3</td>
</tr>
<tr>
<td>12. The speech is intelligible?</td>
<td>7</td>
</tr>
<tr>
<td>13. Asks repetitions than the teacher say?</td>
<td>1</td>
</tr>
<tr>
<td>14. Has planning and argument in the discussions in written evaluations?</td>
<td>4</td>
</tr>
<tr>
<td>15. Participates in discussions in the classroom?</td>
<td>5</td>
</tr>
<tr>
<td>16. Complete tasks?</td>
<td>8</td>
</tr>
<tr>
<td>17. Works alone or with a little help from the teacher?</td>
<td>7</td>
</tr>
<tr>
<td>18. Answers questions from books or handouts class?</td>
<td>8</td>
</tr>
<tr>
<td>19. Talk about a movie, a class lecture or heard?</td>
<td>6</td>
</tr>
<tr>
<td>20. Demonstrates knowledge of the evidence?</td>
<td>5</td>
</tr>
<tr>
<td>21. Expresses thoughts in writing?</td>
<td>5</td>
</tr>
<tr>
<td>22. Is able to solve problems?</td>
<td>9</td>
</tr>
<tr>
<td>23. Can tell about what read?</td>
<td>5</td>
</tr>
</tbody>
</table>

Note: No.: Number; %: Percentage.
Table 3 – Communicative performance of impaired adolescents according teachers: performance analysis by individual

<table>
<thead>
<tr>
<th>Indivíduos</th>
<th>Severe hearing loss</th>
<th>Profound hearing loss</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Total number of appropriate responses in a total of 23 questions</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Percentage %</td>
<td>78,3</td>
<td>78,3</td>
</tr>
</tbody>
</table>

Table 4 – Descriptive measures of the percentage (%) of positive responses in communicative performance and interview with the teachers of deaf adolescents

<table>
<thead>
<tr>
<th>Values</th>
<th>Evaluation</th>
<th>Interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum value</td>
<td>0</td>
<td>60,87</td>
</tr>
<tr>
<td>Median</td>
<td>50</td>
<td>78,26</td>
</tr>
<tr>
<td>Maximum value</td>
<td>100</td>
<td>82,61</td>
</tr>
<tr>
<td>Average</td>
<td>55,56</td>
<td>73,91</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>37,79</td>
<td>7,21</td>
</tr>
<tr>
<td>Wilcoxon statistical test result</td>
<td>1,36 (p &gt; 0,05)</td>
<td></td>
</tr>
<tr>
<td>Result of the linear correlation of Spearman</td>
<td>0,12 (p &gt; 0,05)</td>
<td></td>
</tr>
</tbody>
</table>

**DISCUSSION**

Phonoaudiological language evaluation

The best performance showed by the participants with severe hearing loss compared to participants with profound hearing loss corresponds with Souza et al. (2011) reports that, the slightest the hearing loss the better are the skills to receive sound information and answer them orally. Differences between the hearing loss degree interfere in the linguistic performance of the deaf. So, the biggest the degree of hearing loss, the biggest can be the damages to oral language acquisition and learning process.

The individuals 1, 2, 3, 4 and 5 did not show difficulties in listening comprehension. The other adolescents presented alterations here. The difficulties of comprehension were predictable, especially in adolescents with profound hearing loss.

Majority of adolescents (five of them: 1, 2, 3, 4 and 6) used good communicative strategies. The individuals 5, 7, 8 and 9 used some simulative strategies. Adolescents between 13 and 15 years old are capable of playing roles in conversation according to impression and feelings of the interlocutor. After this age, they should be able to master all the conversational rules and face the multiple situation evolved in a conversation. Listeners adolescents aged between 17 and 20 years communicate through oral language clear and coherent using simple and well structured sentences, mastering basic morphosyntax rules, using lexicon composed by simple and every-day vocabulary, sometimes using synonyms and slangs.

The individuals 1, 2, 3, 4 and 5 did not show alterations related to the syntactic aspect. Acosta et al. (2003) also report that, during adolescence, individuals have already dominated syntactic rules. This fact was not observed in individuals 6, 7 and 8 who presented slight alterations, not even in individual 9, who demonstrated moderated alterations. The most frequent alterations observed were related to the kind of sentence used, being more unusual coordinated clauses and subordinated. Other authors observed that impaired people can present alterations in different aspects of language, related to form, content and usage.

About the item “Metalinguage usage” just individuals 1 and 3 were capable of using this skill (Table 1). All the other individuals demonstrated difficulties in comprehension and usage of figurative language. Between 8 and 11 years old, the development of a more concrete and reversible thinking allows the individual to use the verbal concepts out of their context, as well as classify or categorize words. From 11 years old, more complex thoughts are developed which makes the adolescent use figurative and metaphoric terms in communication.
So, figurative language dominance is already expected from the people in this study. However, impaired individuals have more difficulties in abstract reasoning\(^1\), which was observed in this study.

Hearing adolescents are capable of understanding ambiguous expressions, inferences and figurative language. From 16 to 18 years, listeners are capable of effective detect lexicon ambiguities, but could still have difficulties in syntactic ambiguities and profound structure, showing us that although the impaired adolescent may have difficulties in this aspect, those difficulties are related in the phase they are in\(^2\).

In respect to “Vocabulary”, just the individuals 6, 8 and 9 showed moderated alterations (Table 1). The others presented a good vocabulary. Amemiya et al. (2013)\(^18\) observed that children who had hearing losses and were oralized by speech therapy got the same results as hearing children when it comes to nouns and verbs. On the other hand, other authors report that individuals with hearing loss can present a smaller vocabulary than hearing people. This could happen due to the difficult in identifying new words in conversation, which is a pre requisite to the lexicon development\(^29\). It is expected that the child comprehends more or less three thousand words when 6 years old and a hundred thousand when 12 years old. In respect to production, it is expected that they are capable of producing half of what they comprehend\(^29\). Adolescents may have difficulties in using some adverbs\(^2\).

The item “Fluency” was considered normal in the majority of individuals. The individuals 5, 7, 8 and 9 showed some kind of alteration, like increasing or decreasing of speech speed, pauses and prolongation. Even though, these alterations do not characterize a fluency problem. One of the main factors that affect in impaired people fluency refers to the control of the respiratory mechanism related to the pneumophonic coordination\(^30\).

In the aspect “Speech intelligibility” we noticed alteration for most of the individuals (3, 5, 6, 7, 8 and 9) (Table 1). Individuals 5 and 8 presented bigger level of alteration (moderated). In those individuals, we could notice, besides phonetic alterations, vocal quality and resonance alterations. The other individuals showed slight alterations. Impaired people, in general, have alterations in respiratory, in larynges and upper airways functions\(^30\). In general, they have sharp pitch, dull sound, like cul-de-sac with hiponasal voice. Moeller et al. (2010)\(^31\) made clear that children with slight to profound hearing losses can have significant issues in communicative skills, mainly about morphologic, phonologic aspects and speech intelligibility. This is a problem of great impact in adolescent’s socialization, because it makes the impaired individual in a position of disadvantage, segregating them.

Just individual 9 showed alterations in the item “Conversational topics”, in a slight level. The dominance of the pragmatic aspect evolves the participation in a conversation that demands the interlocutors to accomplish turn rules, in which they must keep their positions in exchanging turns. Besides, evolves the theme maintenance (task that demands that the participants follow certain rules and principles) and the capacity of adapting to different individuals, roles and situations\(^26\), which was not observed in the individual 9.

The communicative functions were adequate to individuals 1, 2, 3 and 4. Adolescents 6, 7 and 8 had slight alterations and the others (5 and 9), in moderated level (Table 1). Pragmatics skills studies in impaired children concluded that these communicative functions are similar to these skills in hearing children\(^6\). However there is a difference between the communicative environment used: impaired children prioritize signs while hearing children prioritize oral language.

As described by literature, language keeps developing itself through all adolescence, especially in syntactic, semantic and pragmatic aspects\(^2\). In adolescence, an important evolution in cognitive development occurs and the capacity of abstraction and reasoning through hypothesis is conquered. The patients evaluated showed great difficulties in this aspect. Problems with abstract and logical reasoning are evident, as well as the difficulties in comprehension of metalanguage\(^1\).

**Interview with the teachers**

All the teachers reported that their impaired students use listening to comprehension. Just one teacher reported that his student does not use speech reading as a support. None of them reported the usage of non-natural signs to the listener’s communication, that means, the usage of a pattern of gestures associated to the oral communication, which can be justified by the approach used (oralism).

All the teachers affirm that their students are capable of follow the conversation with just one person. Just three of them consider the students able to follow a group conversation (Table 2). In conversation between various people, the impaired person attention is dived between trying to maintain the conversational topic as the speaker changes and determinate who is speaking, which brings issues in conversation maintenance.

From the interviewed, six teachers report that their students with hearing loss were capable of giving precise information and, during conversation,
could change topics in an adequate way. The pragmatic function evolves the dominance of many aspects, including the ability to adopt the perspective of another person and the social character of his language, the ability of transmitting information about precise referents, which means, not ambiguous\textsuperscript{26}, and is suitable in these individuals.

Just two individuals, according to teachers, are used to ask for repetitions during classes (Table 2). This point must be evaluated with a certain care, because the fact that the students do not ask for repetition can be associated to their fear of exposing their disability.

Eight teachers judged their students’ speech intelligible. So, teachers do not present, in general, complaints about the speech intelligibility of their students’, different from the evaluators, who observed various individuals with problems in this aspect. This is probably because of the different criteria adopted: the teacher uses the functional aspect while the evaluator uses the function allied to the phonoarticulatory precision. It is also important to emphasize the fact that the teachers are not trained to perceive nuances in speech, and the possibility of a bigger tolerance with their students with disabilities.

The teachers also report that five students participated in discussions during classes. Also said that three students are not capable of telling something they have heard, a film, a lecture or news (Table 2). This shows the difficulties that those students have of dealing with listening information when this is the unique canal of information, the difficulties in narration, argumentation, skills required by this kind of strategy. Impaired individuals, even when using hearing aids, can present difficulties in recognizing and comprehending spoken language\textsuperscript{23}. Here we emphasize the need of other abilities, than listening, like the orofacial reading, for example\textsuperscript{23}.

About the writing communication, five teachers reported the lack of planning and arguments in the responses of tests from the impaired students. They usually show a lot of difficulties in acquisition of written language. Many times, as a result of sensorial privation, the impaired students may have a linguistic gap between spoken and written language\textsuperscript{19}. This gap becomes clear in phonological, semantics, morphosyntactic and pragmatic aspects during conversation. Students who have problems in comprehension and understanding of language probably will have learning issues, that can bring socialization problems and issues in global behavior\textsuperscript{6}.

In this study, five teachers affirm that their impaired students can express thoughts through writing and show their knowledge in tests and they are also capable of telling a story they have read. Students with severe to profound sensorineural hearing loss, usually, have significant delay in reading when compared to hearing students. This delay can be even more damaging to new vocabulary acquisition\textsuperscript{34}.

According to teachers, seven students are able to complete tasks without help, eight do not answer to book’s questions and do not have a good performance in solving problems.

The speech therapy and schooling can increase the process of learning. Children with hearing loss have better cognitive and language performance when they are assisted early by a phonoaudiologist and are inserted in a scholar environment. This provides a better performance in school, which can be compatible to the chronological age.

\section*{Performance adequation}

When statistically compared the adequate proportion of performance between the procedures, they do not differ. Therefore, it was not possible to determinate linear associations between the responses of individuals. So, we can observe that most of the evaluated individuals have a good communicative and linguistic performance, especially those with severe hearing loss.

\section{CONCLUSION}

Even though a severe or profound hearing loss individual has a great possibility of showing significant issues in oral communication, the adolescents in this study (probably because they use hearing aids and have a speech therapy support for at least 8 years) had a good communicative, linguistic and oral performance, being that effective in their daily lives.

As a characteristic of the oral communication of those individuals, we observed a good performance for most of the groups when it comes to “Conversational topics”, “Vocabulary” and “Syntax”. The biggest difficulties found were the items “Metalanguage usage” and “Speech intelligibility” (in language phonoaudiological evaluation), in following conversation with more than one person and argumentation in written tests (according to teachers’ report).

Despite the limitation because of the small number of adolescents, this study brings, in an interdisciplinary perspective, important points to be observed, by educators as well as phonoaudiologists. The results point to important therapeutics goals to be implemented with those individuals in this phase of the linguistic development. It is important to emphasize the relevance of the highlighted items in impaired adolescents development, in linguistic, emotional, educational and sociocultural aspects.
RESUMO

Objetivo: caracterizar a linguagem de adolescentes deficientes auditivos oralizados que frequentam a escola regular, assim como a percepção do professor a respeito da comunicação desses alunos.

Métodos: amostras de fala espontânea de adolescentes portadores de perda auditiva pré-linguística de grau severo ou profundo e entrevista com os professores. Resultados: as maiores dificuldades apresentadas pelos indivíduos na avaliação fonoaudiológica foram em relação à linguagem abstrata e à inteligibilidade de fala; no relato dos professores foram em relação à argumentação em avaliações escritas e à conversação com mais de um interlocutor. Conclusão: apesar do grau de perda auditiva apresentado pelos indivíduos, observou-se um bom desempenho destes quanto à comunicação, sendo esta efetiva em sua vida diária e escolar.

DESCRITORES: Perda Auditiva; Adolescente; Linguagem.

REFERENCES

18. Souza MRF, Osborn E, GIL D, Iório MCM. Tradução e adaptação do questionário ABEL, Auditory Behavior in Everyday Life, para o
ANNEX 1

Protocol for the evaluation of oral language to hearing impaired adolescents

HEARING ABILITIES

a. Auditory behavioural

1. Auditory comprehension
   Is able to understand:
   ( ) Familiar expressions
   ( ) Simple orders
   ( ) Complex statements
   ( ) Stories
   ( ) Metalanguage
   ( ) Speech in noise places

2. Conversational topics
   ( ) Seems to keep the conversational topics
   ( ) Be confused
   ( ) Changes the subject to have not understood

3. Interlocutor vocabulary and syntax
   ( ) Understand vocabulary ( ) simple ( ) complex
   ( ) Understand syntactic structures ( ) simple ( ) complex

b. Communication strategies (Boéchat, 1992)

Cognitive strategies:

1. Orofacial reading:
   ( ) Looks at the speaker’s face
   ( ) Makes oral face reading
   ( ) Notes the speaker’s facial expression
   ( ) Asks to speak from the front

2. Context:
   ( ) Captures the message’s meaning
   ( ) Deduces by subject
   ( ) Tries to guess

3. Attention:
   ( ) Keeps the concentration
   ( ) Remains fixed on the speaker

4. Organization:
   ( ) Repeats what is understood and awaits completion of the speaker
   ( ) Asks for repetition

5. Explanation about deafness:
   ( ) Explains that doesn’t understand because can not hear well?

6. Questioning:
   ( ) Asks when doesn’t understand

Intervenional strategies:

1. Approaching speaker:
   ( ) Approaches the speaker to hear him
   ( ) Asks to speaker to approach of hearing aid
2. Favorable positioning:
   ( ) Positioned near the light (to orofacial reading)
   ( ) Placed in a strategic position in meetings

3. Distance from noise:
   ( ) Moves away from the noise sources
   ( ) Reduces noise when possible
   ( ) Seeks to eliminate the noise source

4. Asks change speed:
   ( ) Asks the speaker to speak slowly

5. Limiting the number of partners:
   ( ) Talks to no more than two people at once
   ( ) Asks to speak only one at a time
   ( ) Remains fixed on only one speaker

6. Speaker favorable positioning:
   ( ) Place the front of interlocutor
   ( ) Puts the listener away from the noise

**Mechanical strategies:**
1. Hearing aid manipulation:
   ( ) Lowers volume
   ( ) Increases volume

2. Use assistive devices:
   ( ) Uses amplifiers for phones
   ( ) Use FM system
   ( ) Other
   What:______________________________

**Palliative strategies:**
1. Asks for repeats ( )
2. Asks to increase volume voice ( )
3. Asks lower volume voice ( )
4. Says that not understand ( )

**Remediation strategies:**
1. Calls outside help to facilitate communication ( )
2. Postponing conversation ( )
3. Avoid situations ( )
4. Uses writing as support ( )

**Desisting strategies:**
1. Is isolated ( )
2. Abandons the situation ( )

**Simulative strategies:**
1. Conversation Monopoly:
   ( ) Speaks louder than others
   ( ) Non lets others talk

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2. Understanding simulated:
( ) Responds with mechanical expressions
( ) Pretends to have understood

3. Simulated distraction:
( ) Pretends to be talking to him
( ) Pretends not to have heard ( ) Disguises

SPEAKING SKILLS

a) Linguistic characteristics
1. Produces various syntactic forms:
Type of sentence:
( ) Affirmative ( ) Negative
( ) Exclamative ( ) Interrogative
- With pronouns (who, when, where...) ( )
- Without pronouns ( )
- Sentence extension: ( ) 1-3 elements ( ) 4-6 elements ( ) 7-9 elements
( ) More than 9 elements
- Use of grammatical meaning words:
( ) Uses them correctly ( ) Omits them
- Periods type:
( ) Simple ( ) Compound
( ) Independent clause ( ) Subordinate clause

2. Produces figurative language or slang ( )

3. Produces precise vocabulary:
( ) Usual ( ) Differentiated

4. Morphological features:
Inflections – Deviation:
Verbal: ( ) People ( ) Time ( ) Regular verbs
( ) Irregular verbs ( ) No deviation

b) Paralinguistic features
1. Fluency
( ) Increased speed ( ) Lowered speed ( ) Appropriate

2. Intelligibility (based on Pegoraro-Krook, 1995)\textsuperscript{24}
( ) Normal: clear – without any difficulty understanding speech
( ) Slight: slightly impaired, but can understand the statement and understand the idea
( ) Slight to moderate: it is difficult to understand part of the statement, causing certain damage in understanding ideas
( ) Moderate to severe: it is very difficult to understand most of the statement, with great loss in understanding ideas
( ) Severe: impossible to understand the statement and idea

3. Lexical access:
( ) Use appropriate vocabulary ( ) Lowed vocabulary
( ) Use hyper-generalizations
( ) Uses periphrases ( ) Delay to access
( ) Access by representative gestures
c) Communicative functions – Pragmatic aspect
1. Gives information ( )
2. Asks information ( )
3. Describes objects and events ( )
4. Expresses beliefs, intentions and feelings ( )
5. Can persuade the listener (feel, believe) ( )
6. Use language to solve problems ( )
7. Uses language for fun (jokes, sarcasm ...) ( )

d) Pragmatic aspects
1. Initiate conversation ( )
2. Chooses the topic ( )
3. Keeps the topic ( )
4. Changes the topic ( )
5. Respects shifts ( )
6. Corrects up when needed ( )
7. Stops ( )

e) Respect for conversational rules
1. Talk too much ( ) Low ( )
2. Seems sincere ( )
3. Makes important contributions ( )
4. Expresses thoughts clearly ( )
5. Is skilled ( )

f) Use of non-verbal behaviour
1. Uses facial expressions or gestures ( )
2. Maintains eye contact ( )
3. Maintains proximity (physical distance of the interlocutor) ( )

g) Logical thinking skills
1. Is able to solve problems aurally ( )
2. Can make deductions ( )
3. Can place facts in logical sequence ( )