

Formative Evaluation:

Formative evaluations (both quantitative and qualitative measures) will be done intermittently (about once every 3 sessions) in order to gather information about on-going treatment. Collection of data will depend on the nature of the task, such that if the task requires a lot of participation from both student clinicians then data will most likely not be recorded online for that task. Treatment effectiveness will be measured by both an increase in scores on a measure and HN's perceptions of her progress on the task.

Goals:

- 1) Use velar sounds /k/ and /g/ in bisyllabic words and in all word positions without support from a clinician with 90% accuracy in a 5 minute structured conversation.

Quantitative Measures:

- a) Count the number of velar sounds that are correctly produced during the activity. This can be divided by the total number to get an overall percentage. Depending on where on the hierarchy we are working at, correct productions when a cue is provided may or may not be counted as correct.
- b) When cues are being provided, count the number of cues that were provided for H.N to get an accurate velar sound.

Qualitative Measures:

- a) When cues are provided, write down which type of cue (verbal vs. written) prompted H.N to produce an accurate velar sound.
 - b) Note any observed affect (frustration, enjoyment, confidence)
 - c) Note any differences in success between different types of activities/materials (using real objects vs. pictures vs. written word).
 - d) Ask HN if she found the task easier or harder than last time
- 2) Produce 8 of 10 pre-selected functional phrases with no cues in a semi-structured role play activity with the clinicians in the therapy room with 100% intelligibility (understand meaning being conveyed) across 1 role play activity.

Quantitative Measures:

- a) Count the number of correctly produced functional phrases
- b) Rate (using a rating scale from 1-10) how easy it was to understand the phrase H.N produced
- c) When cues are being provided, count the number of cues that were provided for HN to accurately produce the functional phrase so that it could be understood by others

Qualitative Measures:

- a) Note any observed affect (frustration, enjoyment, confidence)
- b) When cues are provided, note which type of cue (verbal, written, or both) allowed HN to produce an accurate functional phrase that was understood by others.

On-going assessment

- c) Note if any of the functional phrases are particularly easier or harder for HN to say accurately.
- d) Ask HN if she found the task easier or harder than last time.
- 3) H.N will be able to verbally describe 4 out of 6 key points (who, what, when, where, why, how) from 2 newspaper articles with 15 sentences each without support from clinicians in an unsupported conversation

Quantitative Measures:

- a) Count the number of key points HN can verbally describe from the article (or sentences).
- b) When cues are being provided, count the number of cues that were needed for HN to identify the specified number (depends on hierarchy) of key points.

Qualitative Measures:

- a) Note if any of the key points are particularly easier or harder for HN to verbally identify
 - b) Note if there is a difference in performance based on content of article (what the article is about)
 - c) When cues are being provided, document what cue (visual, verbal, or both) helped HN correctly identify a key point.
 - d) Note any affect that may be present (confidence, frustration, enjoyment).
 - e) Ask HN if she found the task easier or harder than last time.
- 4) H.N will use circumlocution in 80% of opportunities (when word finding difficulty arises) in a 5 minute conversation with significant other in naturalistic setting without support from clinician.

Quantitative Measures:

- a) Count the number of times HN circumlocutes during the activity and total number of times HN has word finding problems. This will give you a percentage of the number of times HN circumlocutes when she has word finding difficulties.
- b) Count the number of times HN circumlocution is effective (helps her retrieve the word or helps listener guess the word)
- c) When cues are provided, count the number of cues that were needed for HN to effectively (help her find word or listener guess word) use circumlocution

Qualitative Measures:

- a) When cues provided, document what cue (visual(SFA chart), verbal, or both) was most helpful for HN to effectively use circumlocution.
- b) Take note HN's willingness to use circumlocution- does she use it spontaneously or only when the clinicians tell her to?
- c) Document an emotions HN is demonstrating (confidence, frustration, enjoyment)
- d) Note if there is any difference in performance based on stimuli being used to elicit word finding difficulties (objects, pictures, scenes).
- e) Ask HN if she found the task easier or harder than last time.

Summative Evaluation:

Summative evaluations will be done before treatment begins (pre-measure), early on in treatment (a few weeks in), the middle of treatment (half way through) and at the end of treatment (post-measure) for both quantitative and qualitative measures. Regardless of the nature of the task, data will be collected either online if possible but these sessions will be video and audio recorded in order to be able to go back and get accurate and meaningful data if needed. No cues will be provided during these measures as all the goals aim to be able to do the targeted production without cues. Cues will be documented by formative evaluations and therefore, performance with and without cues can be compared. Treatment effectiveness will be measured both by the difference in scores between pre-measures, middle measures, and post measure as well as HN and her families perception of her progress. Generalizability will also play a role in measuring treatment effective such that if the skill is generalized we will conclude that treatment was effective and allowed skills to be generalized. However, even though skills may not generalize to other context, treatment will still be considered effective if pre and post measure scores increase.

Goals:

- 1) Use velar sounds /k/ and /g/ in bisyllabic words and in all word positions without support from a clinician with 90% accuracy in a 5 minute structured conversation.

Quantitative Measures:

- a) Pre measure: Story retell with significant other. Count number of correctly produced velar words (initial, medial, and final) and number of incorrectly produced velar words. This will give a percentage of correctly produced velars. (Please see record form at the end of this section)
- b) Middle measures: These measures will be dependent on where the treatment is currently at based on the hierarchy. For example, if HN is working on phrase level with word initial, the measure would be a probe that measured the accuracy of her word initial velar production and may also include measuring accuracy of targets that were previously targeted (e.g. bisyllabic word initial, medial and final).
- c) Post measure: Same as pre-measure. Story retell with significant other. Count number of correctly produced velar words (initial, medial, and final) and number of incorrectly produced velar words. This will give a percentage of correctly produced velars. To measure generalizability, we will ask 2 family members to count the number of correctly and incorrectly produced velars during a 5-10 minute conversation.

Qualitative Measures:

- a) Take note of any emotions HN displays and the reason for the emotions.
- b) To get a sense of generalization, ask HN and her family if the production of velar sounds are consistent and accurate outside of the therapy room.
- c) Ask HN/family if she feels as though she has gotten better at producing velar sounds since the beginning of treatment. This will be done informally but simply asking but HN and/or family cannot provide an answer a rating scale may be provide to them so they can rate the progress they see.

On-going assessment

2) Produce 8 of 10 pre-selected functional phrases with no cues in a semi-structured role play activity with the clinicians in the therapy room with 100% intelligibility (understand meaning being conveyed) across 1 role play activity.

Quantitative Measures:

- a) Pre-measure: The number of times out of ten H.N can get her message across during a role play activity that elicits the 10 functional phrases that are being taught in therapy. (Please see record form at the end of this section)
- b) Middle measures: These measures will be dependent on where the treatment is based on the hierarchy. Informal probes will be used to elicit the functional phrases that have been targeted thus far in therapy. Probes may consist of structured task, semi-structured task, and may measure 5,8,or 10 phrases (depending on where treatment is based on hierarchy). Structured task would consist of drill activity while a semi-structured task would consist of a role-play activity.
- c) Post-measure: same as pre-measure. The number of times out of ten H.N can get her message across during a role play activity that elicits the 10 functional phrases that are being taught in therapy. To get a sense of generalizability to outside of the therapy room, we will ask 2 of her family members to record the number and intelligibility (on a rating scale) of these 10 functional phrases she uses in her everyday life.

Qualitative Measures:

- a) Take note of any emotions HN displays and the reasons for these emotions.
- b) To get a sense of generalization, ask HN how often she uses these phrases and when she does if the listener understands her.
- c) Ask HN and her family for their perspective on progress in this area. Ask family if they hear her use these 10 phrases more often and if they are more effective. Ask HN if it is easier for her say these 10 phrases and if she feel more confident and comfortable using them in everyday life.
- d) Ask HN if there are certain situations where she finds it easier to use these phrases and what situations she finds most difficult to use these phrases in. For example, with family vs. strangers, when she is nervous vs. calm...etc.

3) H.N will be able to verbally describe 4 out of 6 key points (who, what, when, where, why, how) from 2 newspaper articles with 15 sentences each without support from clinicians in an unsupported conversation

Quantitative Measures:

- a) Pre-measure: Number of key points H.N describes after reading 1 15 sentence (3 paragraphs) newspaper article without support from clinician. (Please see record for at the end of this section).
- b) Middle measures: These measures will be dependent on where the treatment is based on the hierarchy. Similar activities that were used during treatment (matching headlines to article, multiple choice questions, verbally describing the article) will be used for our middle measures. For example, if we are at multiple choice questions, 9 sentences and 4 key points we would could the number questions based on a 9 sentence article with 4 key points HN got correct and incorrect.

On-going assessment

- c) Post measure: same as pre-measure. Number of key points H.N describes after reading 1 15 sentence (3 paragraphs) newspaper article without support from clinician. To measure generalization, we will also get HN read a short story book and count the number of key points she can verbally describe.

Qualitative Measures:

- a) Take note of any emotions HN displays and the reasons for these emotions.
 - b) To get a sense of generalization, ask HN if she can identify key points in articles she has never read before or articles other than from the METRO (this is the newspaper we used during treatment).
 - c) Ask HN and her family for their perspective on HN's reading comprehension progress. Ask family if she reads more often than before and if she can tell them what an article is about if they ask her.
 - d) Ask HN if certain types of articles (content, subject, writing style) are easier or harder for her to read and understand.
- 4) H.N will use circumlocution in 80% of opportunities (when word finding difficulty arises) in a 5 minute conversation with significant other in naturalistic setting without support from clinician.

Quantitative Measures:

- a) Pre-measure: Number of circumlocutions (without cues from clinicians) during a 5 minute conversation in a coffee shop with significant other.
- b) Middle measures: These measures will be dependent on where the treatment is based on the hierarchy. Measures will include probes either on structured tasks, semi-structured tasks, in scaffolded conversations, or in natural conversation in a variety of settings (therapy room, RMS kitchen, coffee shop), depending at what level HN has progress to in the hierarchy at the time of these measures. For example, if HN is at the level of semi-structured task in the coffee with the clinician than the measure would be the number of times HN uses circumlocution without prompting when word finding difficulties arise when describing a picture while sitting in a coffee shop.
- c) Post-measure: same as pre-measure. Number of circumlocutions (without cues from clinicians) during a 5 minute conversation in a coffee shop with significant other. To measure generalization, we will also count the number of other cueing strategies (gestures, writing, drawing) HN uses during this 5 minute conversation.

Qualitative Measures:

- a) Take note of any emotions HN displays and the reasons for these emotions.
- b) To get a sense of generalization, ask HN if she uses circumlocution in other situations other than in the therapy room, or at the coffee shop where we practiced.
- c) Ask HN and her family for their perspective on HN's ability to use circumlocution as a strategy for word finding. Also ask HN's family if they find it helps them guess what word she is trying to say.
- d) Ask HN if there are certain context or situations she finds it easier or harder to use this strategy.
- e) Ask HN if she likes using this strategy and if it's something she thinks she will use on her own.

On-going assessment

Treatment plan for all our goals includes following the hierarchies made for each smart goal. These hierarchies will be used to plan treatment tasks and activities. We will move along the hierarchy (up or down) as we see fit, such as if the task is much too easy for our client we will skip a few steps in the hierarchy and proceed to a more difficult task whether that be because it has less supports or it is a more unstructured task (depends on the goal and hierarchy).

Summative Evaluation Record Forms

Pre/Post Measure of **Velar articulation**

Activity: Story-retell to a family member

Bisyllabic Words

Word	What she said	What she said	Word Position
Kandace			I
Golfing			I
cribbage			I
coffee			I
Racetrack			F
mistake			F
because			M
broken			M
carried			I
ticket			M
speaking			M
topic			F
airbag			F
attack			F
towtruck			F
pickup			M
clubhouse			I
picnic			M
carrots			I
popcorn			M
pickles			M
Turkey			M
cookies			M
Basket			M
walking			M

Monosyllabic words

Word	What she said	What she said	Word Position
go			I
game			I

On-going assessment

cup			I
golf			I
course			I
cars			I
get			I
called			I
could			I

Functional Phrases-Pre-measure/postmeasure

Activity: Role play and see what she says

1. Do you want to play crib?
2. Can I have a coffee please?
3. Do you want to go for a walk?
4. What time are you picking me up?
5. I need more time to talk.
6. I don't feel well. I need a doctor.
7. Could you write that down for me?
8. What did you do on the weekend?
9. I went to the lake this weekend.
10. 780-451-5432

Pre/post-measure for **Reading Comprehension**

Activity: Read article and tell student clinician what it was about

Article:

of sentences:

of paragraphs:

WHO	WHAT	WHEN	WHERE	WHY	HOW

Portfolio Assessment

Rationale/Intents:

The purpose of this portfolio is to both demonstrate HN's growth and progress over time as well as highlight her strengths in the area of speech and language. The intent of this portfolio is not simply to keep track of HN's progress but also to provide her with concrete, personal examples of the progress she has made. The intent is not that she knows she made progress because her test scores improved but instead because she can see real life examples of this progress through videos and audio recordings, and/or written samples. In addition, this portfolio is intended to provide a complete picture of HN and her communication abilities which then can be easily shared with her and her family as well as with other professionals.

We believe a portfolio assessment is important as it integrates both the client and the family in the assessment and progress monitoring process. Without a portfolio like this, most assessments and progresses are restricted to the clinician's assessments and therefore, are usually based on standardized tests. Using tools other than tests that the clinician has administered allows HN and her family to be highly involved in the assessment portion of therapy which will likely lead them to see progress even though it may be slow and/or limited. Allowing HN and her family to realize and see the progress will benefit them such that it may increase HN's motivation to continue with speech therapy and to practice the skills she has learned and may also increase her confidence in her communication skills.

The contents of HN's portfolio will include a variety of materials such as video and audio recordings as well as some written samples. The following items will be included in her portfolio:

- 1) audiotapes of situations where HN is producing velar sounds correctly and consistently. Clinicians will play the tape for HN and family and point out the times she correctly produces a velar. We will highlight the moments where she produces velars in more difficult context such as bisyllabic words and when the velar is word initial. We think it is important to include audiotapes of HN correctly producing velar sounds because she often does not believe that she correctly produces the sound. During treatment, when we tell her she did a great job of making her velars she often says "I don't know" and shrugs her shoulders. I think by providing her with something she can go back and listen to will be helpful in showing her that she can make those sounds.
- 2) Audio/video recording of HN in a natural context using the functional phrases she was taught in therapy. We will play the tape for HN and her family and point out the times when she was and was not understood by the listener. As treatment progress hopefully HN will be able to see by the recordings that more often than not the listener does understand her when in a situation where she can use some of those 10

functional phrases. We think it is important to include these recordings because it will demonstrate to HN that she is a competent communicator and that she can be independent because she can get her message across in everyday situations. Showing her that she can be independent is key as she is very reliant on family to do many things for her including communicate with strangers (e.g. to make appointments).

- 3) Newspaper articles HN was able to identify and describe key points from. We would include some from the beginning of treatment which would probably be about 1-4 sentences and then some from the end of treatment which should be much longer (10-15 sentences) than the ones at the beginning. We think it is important to include the article's themselves as this will give HN and her family a concrete visual of the progress HN has made with her reading comprehension. There is a very big difference in appearance between a 2 sentence article and a 10-15 sentence article. This difference will demonstrate the immense progress HN will have made from her hard work and motivation during therapy.
- 4) Audiotape of conversations where HN uses circumlocution effectively. We will listen to the tape with her and her family and point out all instances of circumlocution and their effectiveness. We will talk to HN and her family about HN's strengths in the use of circumlocution and the progress she has made. We will tell her that the progress can be seen from the recordings such that we can get her to listen to a recording from the beginning of treatment and point out that she barely used circumlocution but in the tapes in her portfolio she uses circumlocution a lot and point out that it is very effective to help get her message across.
- 5) A semantic feature analysis chart (SFA) that highlights the features that HN uses to describe a word when she can't think of it. This will provide HN with a visual of the strategies and techniques she uses to circumlocution. We can highlight the fact that at the beginning of treatment she used none or only 1 of the feature but now she uses multiple features to help describe the word. The features she uses will be highlighted or circled on the SFA chart to provide her with a concrete visual of her progress.
- 6) Samples of HN's writing throughout treatment. We will include a variety of the written homework HN complete throughout treatment in this portfolio. We will look it over with her and her family and point out her areas of strength in her written. For example, we will talk about her neatness in her writing, how all her letter are completed, and anything else we notice she has made progress on. These writing samples will provide HN with a clear visual of her progress in the writing of area. We think it is important to include these samples as this was a home program and HN may feel as though she has not made

progress because it was not directly treated in therapy therefore it is important to highlighted the progress she had made.

Standards/Judgments:

The first thing we will consider when choosing what items to put in HN's portfolio is whether she wants those items in her portfolio. HN must agree that something should go in the portfolio because if she doesn't then that item will not mean anything to her. That is, if she doesn't want the item to go into the portfolio because she doesn't believe it shows her best work or because she doesn't think it shows progress then we won't put the item in her portfolio. The purpose of this portfolio is to allow HN to be able to see her progress, therefore HN must agree that the items being put into the portfolio show progress and show her strengths. As such, quality will not necessarily be a standard or used to judge the items that go into the portfolio. However, the items that we believe are good quality, will be brought to HN's attention and we will ask her if she wants to include those items in her portfolio. Her perspective on the quality of the material will be more important so if she doesn't want that item in the portfolio we will not include it and also if she request an item to be put into the portfolio we will include it even though we may not think it is the best of quality. Again ,we believe including items that demonstrate progress in the eyes of the client is most important as this will allow the client to see and acknowledge the progress that has been made.

Another aspect that we will consider when choosing items will be their saliency, especially for video and audio recordings. Recordings will only be put into the portfolio if they clearly demonstrate the skill being targeted. For example, an audio recording to show progress in the articulation of velars should be a conversation that is structured around a topic that elicited many words containing velars and not any conversation that contained a few words with velars. This saliency of the targeted skill is important because when/if HN decides to take a look in her portfolio after therapy is done it is important for her to be able to identify the skill being targeted in each item in order to see and understand the progress she has made. We would also provide a written description that describes the skill ,her strengths and progress with that skill with each item in the portfolio to make sure she can identify the skill being targeted if she looks at her portfolio after therapy is complete.

Also, items will be chosen on the degree to which they represent the real world and also the extent that they reflect HN's ability to be independent from her family. Items that represent the real world are important because they will demonstrate to HN that she is able to transfer these skills into a real life setting. By demonstrating this, it will also solidify the idea that she can be more independent and not always rely on her family for certain things, especially in regards to speech , language, and communication.

In general, HN will have the biggest say when it comes to deciding which items are included in her portfolio. Saliency of skill in the items, realness of the item, and demonstration of independence are also other factors that will be considered when choosing items to be put into HN's portfolio.