Area of concern: Speech Sounds Intelligibility Place -Alveolar
Goal: Pt will produce: sounds, syllable, words, sentences and/or conversations including / n, s, l, r, rr/ sounds with minimum cue

TECHNIQUE #1: PHONETIC PLACEMENT

THE PATIENT PRACTICED PRODUCING THE /N/, /S/, /L/, /R/, AND /RR/ SOUNDS THROUGH STRUCTURED ACTIVITIES AIMED AT IMPROVING ARTICULATION BY ENSURING THE CORRECT POSITIONING OF ARTICULATORS, SUCH AS THE TONGUE, TEETH, AND LIPS. THE FOCUS WAS ON PRACTICING THESE SOUNDS IN ISOLATION, SYLLABLES, WORDS, AND SENTENCES. SPECIFICALLY, FOR /N/, THE PATIENT WAS INSTRUCTED TO PLACE THE TIP OF THE TONGUE ON THE ALVEOLAR RIDGE AND ALLOW AIR TO PASS THROUGH THE NASAL CAVITY, PRACTICING WORDS LIKE "NOSE," "NAIL," AND "NET." FOR /S/, THE TONGUE WAS POSITIONED CLOSE TO THE ROOF OF THE MOUTH TO CREATE A NARROW PASSAGE FOR AIRFLOW, AND THE PATIENT PRACTICED WORDS SUCH AS "SUN," "SOCK," AND "SIT." FOR /L/, THE PATIENT PLACED THE TIP OF THE TONGUE JUST BEHIND THE UPPER FRONT TEETH AND RELEASED AIR TO CREATE A LIQUID SOUND, PRACTICING WORDS LIKE "LEAF," "LAMP," AND "LION." FOR /R/, THE TONGUE TIP WAS CURLED TOWARDS THE ROOF OF THE MOUTH WITHOUT TOUCHING IT, WITH AIRFLOW THROUGH THE MOUTH, AS IN WORDS LIKE "RUN," "RABBIT," AND "RAIN." LASTLY, FOR /RR/, THE PATIENT ROLLED THE TIP OF THE TONGUE AGAINST THE ROOF OF THE MOUTH TO CREATE A TRILL, PRACTICING WORDS SUCH AS "PERRO," "CARRIL," AND "FERROCARRIL." BY THE END OF THE SESSION, WITH A TOTAL OF 10 TRIALS, THE PATIENT DEMONSTRATED IMPROVED ACCURACY AND CONSISTENCY IN PRODUCING THE TARGET SOUNDS, SHOWING SIGNIFICANT PROGRESS IN ARTICULATION.

TECHNIQUE #2: AUDITORY DISCRIMINATION TRAINING

THROUGHOUT THIS SESSION, THE PATIENT FOCUSED ON ENHANCING THE ABILITY TO DIFFERENTIATE BETWEEN CORRECT AND INCORRECT PRODUCTIONS OF THE /N/, /S/, /L/, /R/, AND /RR/ SOUNDS THROUGH AUDITORY DISCRIMINATION TRAINING. THE PATIENT WAS PROVIDED WITH A LIST OF WORDS BY THE CLINICIAN THAT FEATURED THESE TARGET SOUNDS, AND THEN LISTENED TO BOTH ACCURATE AND INACCURATE PRODUCTIONS. THE PATIENT WAS INSTRUCTED TO DETERMINE WHETHER THE SOUNDS WERE PRODUCED CORRECTLY. WORDS PRACTICED INCLUDED "NEST," "NIGHT," AND "NAME" FOR /N/; "SAND," "SEED," AND "SOAP" FOR /S/; "LIGHT," "LONG," AND "LEND" FOR /L/; "ROAD," "RICE," AND "RING" FOR /R/; AND "CARRERA," "ARRIBA," AND "TARRO" FOR /RR/. THE PATIENT COMPLETED 10 TRIALS PER SOUND AND DEMONSTRATED PROGRESS IN THEIR ABILITY TO IDENTIFY AND DIFFERENTIATE BETWEEN CORRECT AND INCORRECT PRODUCTIONS OF THE TARGET SOUNDS BY THE END OF THE SESSION.

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TECHNIQUE #3: VAN RIPER'S TRADITIONAL ARTICULATION THERAPY

THE PATIENT PRACTICED PRODUCING THE /N/, /S/, /L/, /R/, AND /RR/ SOUNDS USING VAN RIPER'S TRADITIONAL ARTICULATION THERAPY, WHICH INCLUDED PRODUCING THESE SOUNDS IN ISOLATION, SYLLABLES, WORDS, AND SENTENCES. A MIRROR WAS USED TO HELP THE PATIENT VISUALLY MONITOR AND CORRECT THE PLACEMENT OF THEIR ARTICULATORS, SUCH AS THE TONGUE AND LIPS. THE PATIENT OBSERVED THEIR MOVEMENTS WHILE PRODUCING THE TARGET SOUNDS TO ENSURE CORRECT PHONETIC PLACEMENT. FOR EXAMPLE, THEY PRACTICED THE /N/ SOUND BY PLACING THE TONGUE TIP ON THE ALVEOLAR RIDGE, AND WORDS SUCH AS "NEST," "NIGHT," AND "NEED" WERE USED. THE /S/ SOUND WAS PRACTICED WITH TONGUE POSITIONING TO CREATE A NARROW PASSAGE FOR AIRFLOW, AS IN WORDS LIKE "SOFT," "SINK," AND "SEW." THE PATIENT PRACTICED THE /L/ SOUND BY PLACING THE TONGUE JUST BEHIND THE UPPER FRONT TEETH WITH WORDS LIKE "LADDER," "LEAP," AND "LOW." FOR /R/, THE TONGUE WAS CURLED TOWARDS THE ROOF OF THE MOUTH WITHOUT TOUCHING IT, AND WORDS LIKE "ROOF," "ROAD," AND "RAINBOW" WERE PRACTICED. FINALLY, THE /RR/ SOUND WAS PRODUCED BY ROLLING THE TONGUE AGAINST THE ROOF OF THE MOUTH, WITH WORDS LIKE "ARRIBA," "TARRO," AND "CARRO." THE PATIENT COMPLETED A TOTAL OF 10 TRIALS, SHOWING SIGNIFICANT PROGRESS WITH INCREASED CONSISTENCY AND PRECISION IN SOUND PRODUCTION.

TECHNIQUE #4: CYCLES

USING THE CYCLES TECHNIQUE, THE PATIENT WORKED ON THE /N/, /S/, /L/, /R/, AND /RR/ SOUNDS DURING THE SESSION, FOCUSING ON ONE SOUND AT A TIME TO IMPROVE ARTICULATION AND CONSISTENCY. FIRST, THE /N/ SOUND WAS PRACTICED WITH WORDS IN INITIAL AND MEDIAL POSITIONS, SUCH AS "NICE," "NUT," "NEVER," AND "NOD." THE /S/ SOUND WAS THEN TARGETED, FOCUSING ON INITIAL AND FINAL POSITIONS WITH WORDS LIKE "SOUP," "SNAKE," "BASE," AND "SEAT." NEXT, THE PATIENT PRACTICED THE /L/ SOUND WITH WORDS IN INITIAL AND MEDIAL POSITIONS, INCLUDING "LADY," "LATE," "BALLOON," AND "LOOK." THE SESSION CONTINUED WITH THE /R/ SOUND, FOCUSING ON WORDS IN INITIAL AND MEDIAL POSITIONS LIKE "RABBIT," "RICE," "CAR," AND "TREE." FINALLY, THE PATIENT WORKED ON THE TRILLED /RR/ SOUND, PRACTICING WORDS SUCH AS "ARRIBA," "TORRE," "CARRIL," AND "BARRERA." A TOTAL OF 10 TRIALS WERE COMPLETED PER SOUND, AND THE PATIENT DEMONSTRATED NOTICEABLE IMPROVEMENT IN ARTICULATION AND CONSISTENCY WITH EACH TARGET SOUND BY THE END OF THE SESSION.

TECHNIQUE #5: CUEING TEMPORAL AND DYNAMIC TECHNIQUE (DTTC)

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THE PATIENT PRACTICED PRODUCING THE /N/, /S/, /L/, /R/, AND /RR/ SOUNDS USING THE CUEING TEMPORAL AND DYNAMIC TECHNIQUE (DTTC). THIS TECHNIQUE INVOLVED PROVIDING VISUAL, AUDITORY, AND TACTILE CUES TO ASSIST IN THE PRODUCTION OF THE TARGET SOUNDS. THE CLINICIAN USED THESE CUES TO HELP THE PATIENT ACCURATELY PRODUCE THE SOUNDS IN ISOLATION, SYLLABLES, AND WORDS, WITH THE GOAL OF ACHIEVING CONSISTENT AND CORRECT ARTICULATION. FOR THE /N/ SOUND, THE PATIENT PRACTICED WORDS LIKE "NEST," "NIGHT," AND "NEED" USING VISUAL CUES (MIRROR), AUDITORY CUES (LISTENING TO CORRECT PRONUNCIATION), AND TACTILE CUES (FEELING AIRFLOW THROUGH THE NASAL CAVITY). THE /S/ SOUND WAS PRACTICED WITH WORDS LIKE "SAND," "SEW," AND "SINK," WITH CUES FOCUSING ON TONGUE POSITIONING AND AIRFLOW. THE PATIENT ALSO PRACTICED THE /L/ SOUND WITH WORDS LIKE "LIGHT," "LADDER," AND "LOW," USING TACTILE AND AUDITORY CUES TO ENSURE CORRECT TONGUE PLACEMENT. THE /R/ SOUND WAS PRODUCED WITH WORDS LIKE "ROAD," "RAINBOW," AND "RING," EMPHASIZING TONGUE CURLING AND AIRFLOW CONTROL, WHILE THE /RR/ SOUND WAS PRACTICED USING TONGUE TRILL TECHNIQUES WITH WORDS LIKE "ARRIBA," "TORRE," AND "BARRIL." A TOTAL OF 10 TRIALS WERE COMPLETED, AND THE PATIENT SHOWED PROGRESS IN ACCURACY AND CONSISTENCY BY THE END OF THE SESSION.

TECHNIQUE #6: MAXIMAL OPPOSITION

THE PATIENT WORKED ON PRODUCING THE /N/, /S/, /L/, /R/, AND /RR/ SOUNDS USING THE MAXIMAL OPPOSITION TECHNIQUE, WHICH INVOLVES PRACTICING WORDS THAT DIFFER BY MULTIPLE DISTINCTIVE FEATURES TO ENHANCE PHONEMIC AWARENESS AND PROMOTE GENERALIZATION. FOR THE /N/ SOUND, EXAMPLES INCLUDED WORD PAIRS SUCH AS "NET" (CONTRASTED WITH "SET"), "NIGHT" (CONTRASTED WITH "SIGHT"), "NAP" (CONTRASTED WITH "SAP"), "NAME" (CONTRASTED WITH "SAME"), AND "NEAR" (CONTRASTED WITH "SEER"). ADDITIONAL PAIRS FOR /N/ INCLUDED "NOD" (CONTRASTED WITH "SOD"), "NOSE" (CONTRASTED WITH "SO"), "NICE" (CONTRASTED WITH "SLICE"), "NEST" (CONTRASTED WITH "BEST"), AND "NAIL" (CONTRASTED WITH "SAIL"). FOR THE /S/ SOUND, EXAMPLES INCLUDED "SUN" (CONTRASTED WITH "RUN"), "SOCK" (CONTRASTED WITH "ROCK"), "SIT" (CONTRASTED WITH "LIT"), "SAND" (CONTRASTED WITH "LAND"), AND "SAIL" (CONTRASTED WITH "RAIL"). ADDITIONAL PAIRS FOR /S/ INCLUDED "SING" (CONTRASTED WITH "RING"), "SEA" (CONTRASTED WITH "BEE"), "SEED" (CONTRASTED WITH "REED"), "SOAP" (CONTRASTED WITH "ROPE"), AND "SOUP" (CONTRASTED WITH "LOOP"). FOR THE /L/ SOUND, EXAMPLES INCLUDED "LEAF" (CONTRASTED WITH "REEF"), "LAMP" (CONTRASTED WITH "RAMP"), "LION" (CONTRASTED WITH "IRON"), "LOVE"

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(CONTRASTED WITH "ROVE"), AND "LIGHT" (CONTRASTED WITH "RIGHT"). FOR THE /R/ SOUND, EXAMPLES INCLUDED "RUN" (CONTRASTED WITH "SUN"), "RABBIT" (CONTRASTED WITH "HABIT"), "RAIN" (CONTRASTED WITH "LANE"), "RED" (CONTRASTED WITH "BED"), AND "RIDE" (CONTRASTED WITH "WIDE"). FOR THE /RR/ SOUND, EXAMPLES INCLUDED "PERRO" (CONTRASTED WITH "PERO"), "CARRIL" (CONTRASTED WITH "CARIL"), "FERROCARRIL" (CONTRASTED WITH "FERROL"), "CARRERA" (CONTRASTED WITH "CARREA"), AND "BARRIO" (CONTRASTED WITH "BARRIL"). THE PATIENT COMPLETED 10 TRIALS PER PAIR, AND BY THE END OF THE SESSION, THEY SHOWED ENHANCED RECOGNITION AND ARTICULATION OF THE TARGET SOUNDS IN CONTEXT.

TECHNIQUE #7: COMPLEXITY APPROACH

UTILIZING THE COMPLEXITY APPROACH, THE PATIENT ENGAGED IN PRACTICE WITH THE /N/, /S/, /L/, /R/, AND /RR/ SOUNDS BY WORKING THROUGH A LIST OF COMPLEX SOUND BLENDS AND CLUSTERS PROVIDED BY THE CLINICIAN. THIS TECHNIQUE TARGETS MORE INTRICATE SOUND COMBINATIONS TO ENHANCE GENERALIZATION AND IMPROVEMENT ACROSS A BROADER SPECTRUM OF SOUNDS. DURING THE SESSION, THE PATIENT PRACTICED PRODUCING COMPLEX BLENDS INVOLVING THE TARGET SOUNDS. FOR THE /N/ SOUND, EXAMPLES INCLUDED "SNACK" (WITH /N/ IN A CLUSTER WITH /S/), "GNARL" (WITH /N/ IN A COMPLEX INITIAL POSITION), "PLANT" (WITH /N/ IN A CLUSTER WITH /T/), "KNEEL" (WITH /N/ IN A SILENT INITIAL CLUSTER), AND "KNIGHT" (WITH /N/ IN A COMPLEX INITIAL CLUSTER). FOR THE /S/ SOUND, EXAMPLES INCLUDED "STRAW" (WITH /S/ IN A CLUSTER WITH /T/), "SWIM" (WITH /S/ FOLLOWED BY /W/), "SPRAY" (WITH /S/ IN A CLUSTER WITH /P/ AND /R/), "SCOLD" (WITH /S/ IN A CLUSTER WITH /K/), AND "SPLIT" (WITH /S/ IN A CLUSTER WITH /P/ AND /L/). FOR THE /L/ SOUND, EXAMPLES INCLUDED "BLACK" (WITH /L/ IN A CLUSTER WITH /B/), "CLIMB" (WITH /L/ FOLLOWED BY /M/), "FLICK" (WITH /L/ IN A CLUSTER WITH /F/), "GLOW" (WITH /L/ IN A CLUSTER WITH /G/), AND "FLOCK" (WITH /L/ IN A CLUSTER WITH /F/). FOR THE /R/ SOUND, EXAMPLES INCLUDED "CRISP" (WITH /R/ IN A CLUSTER WITH /C/ AND /S/), "FRIEND" (WITH /R/ FOLLOWED BY /F/ AND /N/), "GROOM" (WITH /R/ FOLLOWED BY /G/ AND /M/), "DRIVE" (WITH /R/ IN A CLUSTER WITH /D/ AND /V/), AND "GRAPE" (WITH /R/ IN A CLUSTER WITH /G/ AND /P/). LASTLY, FOR THE /RR/ SOUND, EXAMPLES INCLUDED "ARRIVE" (WITH /RR/ FOLLOWED BY /V/), "TERROR" (WITH /RR/ IN A CLUSTER WITH /T/ AND /R/), "BARRIERS" (WITH /RR/ FOLLOWED BY /B/ AND /S/), "CARRERA" (WITH /RR/ FOLLOWED BY /C/ AND /A/), AND "MIRRAR" (WITH /RR/ IN A CLUSTER WITH /M/ AND /R/). THE PATIENT COMPLETED 10 TRIALS PER

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BLEND, DEMONSTRATING PROGRESS IN ACCURACY AND GENERALIZATION OF THE TARGET SOUNDS, ESPECIALLY IN COMPLEX PHONEMIC CONTEXTS.

TECHNIQUE #8: MULTIPLE OPPOSITIONS

USING THE MULTIPLE OPPOSITIONS TECHNIQUE, THE PATIENT PRACTICED THE /N/, /S/, /L/, /R/, AND /RR/ SOUNDS BY CONTRASTING THEM WITH OTHER PHONEMES TO IMPROVE ARTICULATION AND SOUND DISTINCTION. FOR THE /N/ SOUND, THE PATIENT WORKED ON WORD PAIRS SUCH AS "NET" AND "BET" (FOR /N/ VS. /B/), "NAP" AND "MAP" (FOR /N/ VS. /M/), "NICE" AND "DICE" (FOR /N/ VS. /D/), AND "NEAR" AND "FEAR" (FOR /N/ VS. /F/). FOR THE /S/ SOUND, THE PATIENT PRACTICED WORD PAIRS LIKE "SUN" AND "RUN" (FOR /S/ VS. /R/), "SIT" AND "HIT" (FOR /S/ VS. /H/), "SOAP" AND "ROPE" (FOR /S/ VS. /R/), AND "SAND" AND "BAND" (FOR /S/ VS. /B/). FOR THE /L/ SOUND, EXAMPLES INCLUDED "LEAF" AND "REEF" (FOR /L/ VS. /R/), "LAMP" AND "CAMP" (FOR /L/ VS. /C/), "LIGHT" AND "FIGHT" (FOR /L/ VS. /F/), AND "LION" AND "IRON" (FOR /L/ VS. /I/). FOR THE /R/ SOUND, THE PATIENT PRACTICED WORD PAIRS LIKE "RUN" AND "FUN" (FOR /R/ VS. /F/), "RIDE" AND "HIDE" (FOR /R/ VS. /H/), "ROCK" AND "SOCK" (FOR /R/ VS. /S/), AND "RICE" AND "MICE" (FOR /R/ VS. /M/). FINALLY, FOR THE /RR/ SOUND, EXAMPLES INCLUDED "PERRO" AND "PERO" (FOR /RR/ VS. /R/), "CARRERA" AND "CARERA" (FOR /RR/ VS. /R/), "TARRO" AND "TARO" (FOR /RR/ VS. /R/), AND "ARRIBA" AND "ARIBA" (FOR /RR/ VS. /R/). THE PATIENT COMPLETED 10 TRIALS PER WORD PAIR, SHOWING SIGNIFICANT IMPROVEMENT IN ACCURACY AND THE DISTINCTION OF TARGET SOUNDS.

TECHNIQUE #9: MINIMAL PAIRS

USING THE MINIMAL PAIRS TECHNIQUE, THE PATIENT PRACTICED THE /N/, /S/, /L/, /R/, AND /RR/ SOUNDS BY WORKING WITH PAIRS OF WORDS THAT DIFFER BY A SINGLE PHONEME TO HELP THE PATIENT RECOGNIZE AND PRODUCE DISTINCT SOUNDS ACCURATELY. DURING THE SESSION, THE PATIENT UTILIZED VISUAL AND AUDITORY CUES PROVIDED BY THE CLINICIAN TO PRACTICE THESE MINIMAL PAIRS. FOR THE /N/ SOUND, EXAMPLES INCLUDED: "NET" (CONTRASTED WITH "BET"), "NAP" (CONTRASTED WITH "BAP"), "NEAR" (CONTRASTED WITH "BEER"), AND "NAME" (CONTRASTED WITH "BAME"). FOR THE /S/ SOUND, EXAMPLES INCLUDED: "SIT" (CONTRASTED WITH "FIT"), "SUN" (CONTRASTED WITH "FUN"), "SOCK" (CONTRASTED WITH "FOCK"), AND "SAIL" (CONTRASTED WITH "FAIL"). FOR THE /L/ SOUND, EXAMPLES INCLUDED: "LEAF" (CONTRASTED WITH "REEF"), "LAMP" (CONTRASTED WITH "RAMP"), "LOOK" (CONTRASTED WITH "ROOK"), AND

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"LOVE" (CONTRASTED WITH "ROVE"). FOR THE /R/ SOUND, EXAMPLES INCLUDED: "RUN" (CONTRASTED WITH "FUN"), "RIDE" (CONTRASTED WITH "FIDE"), "RED" (CONTRASTED WITH "FED"), AND "ROPE" (CONTRASTED WITH "FOPE"). LASTLY, FOR THE /RR/ SOUND, EXAMPLES INCLUDED: "PERRO" (CONTRASTED WITH "PERO"), "CARRERA" (CONTRASTED WITH "CARERA"), "ARRIBA" (CONTRASTED WITH "ARIBA"), AND "TARRO" (CONTRASTED WITH "TARO"). THE PATIENT COMPLETED 10 TRIALS PER PHONEME AND SHOWED IMPROVEMENT IN IDENTIFYING AND PRODUCING MINIMAL PAIR WORDS WITH GREATER CLARITY AND ACCURACY. BY THE END OF THE SESSION, THE PATIENT DEMONSTRATED AN ENHANCED ABILITY TO DIFFERENTIATE BETWEEN MINIMAL PAIRS AND PRODUCED THE TARGET SOUNDS WITH INCREASED CONSISTENCY, SHOWING SIGNIFICANT PROGRESS IN ARTICULATION AND PHONEMIC AWARENESS. THE TOTAL NUMBER OF TRIALS WAS 10 FOR EACH TARGET SOUND.