**Appendix A Survey questions**

**Consent:**

I have read the above information and understand what is required of me *[Yes/No]*I am a speech-language pathologist currently practicing in Australia *[Yes/No]*

I consent to taking part in this research project *[Yes/No]*

**Section A: Demographic information**

* + I am:
    - Male
    - Female
  + I currently practice as a speech-language pathologist in:
    - ACT
    - NSW
    - NT
    - QLD
    - SA
    - Tas
    - VIC
    - WA
  + Highest level of qualification
    - Bachelors degree
    - Postgraduate Masters degree
    - Master of Philosophy
    - Doctor of Philosophy
  + Where did you complete your professional qualifying course?
    - Australia
    - UK
    - Ireland
    - Canada
    - US
    - NZ
    - Other (please specify): \_\_\_\_\_\_\_\_\_\_\_\_\_
  + I completed this degree in \_\_\_\_\_\_\_ (please provide year only).
  + As a speech-language pathologist, I have worked in the area of adult non-progressive dysarthria assessment and management for:
    - <1year
    - 1-2 years
    - 3-5 years
    - 6-10 years
    - 11-15 years
    - 16-20 years
    - 21+ years
  + I currently work in a \_\_\_\_\_ setting
    - Regional
    - Rural
    - Metropolitan
  + My primary workplace setting is:
    - Acute general hospital
    - Post-acute/rehab general hospital (inpatient)
    - Outpatient or day hospital
    - Community
    - Residential / nursing home
    - Specialist tertiary centre
    - University clinic
    - Client’s home
    - Private practice
    - Telepractice
    - Other (please specify): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + What percentage of you current workload concerns patients with non-progressive dysarthria?
    - 1 – 10%
    - 10 – 25%
    - 25 – 50 %
    - 50 – 75%
    - 75 – 100%
  + I have clients with non-progressive dysarthria resulting from \_\_\_\_ on my current caseload (including active patients & reviews). Please select all applicable.
    - Stroke
    - Traumatic Brain Injury
    - Cerebral Palsy
    - Aneurysm
    - Hypoxia
    - Encephalitis
    - Other (please specify): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Section B: Dysarthria management**

*Non-progressive dysarthria is dysarthria resulting from any non-progressive condition of the central nervous system, such as stroke, traumatic brain injury or cerebral palsy.*

Intervention information

* + **Subsystems** 
    - If you need to work on the client’s **respiration**, which of the following techniques and devices would you use? *[always, usually, sometimes, never]*
      * Nonspeech tasks, (e.g. abdomino-diagphragmatic breathing, blowing into a water glass manometer)
      * Speech tasks focussing on controlling airflow (e.g. maximum vowel prolongation)
      * Pushing, pulling and bearing down
      * Controlled exhalation tasks
      * Inspiratory muscle strength training
      * Expiratory muscle strength training
      * Postural support (e.g. abdominal trussing, expiratory board or paddle)
      * Establishing an optimal breath group
      * Other (please specify): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    - If you need to work on the client’s **phonation** which of the following techniques and devices would you use? *[always, usually, sometimes, never]*
      * Effortful closure techniques (e.g. grunting and controlled coughing, pushing, lifting, pulling, and hard glottal attack)
      * Turning the head to the left or right
      * Lateral digital manipulation
      * Relaxation exercises
      * Laryngeal massage
      * Initiation of phonation with a breathy onset or sigh
      * Portable voice amplifier
      * Lee Silverman Voice Treatment (LSVT)
      * Other (please specify): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    - If you need to work on the client’s **resonance**, which of the following techniques and devices would you use? *[always, usually, sometimes, never]*
      * Prosthesis (e.g. palatal lift prosthesis)
      * Resistance training during speech (e.g. Continuous Positive Airway Pressure)
      * Modifying the pattern of speaking
      * Biofeedback (e.g. using a mirror, nasometer, nasendoscope)
      * Nonspeech velopharyngeal movements
      * Speech drills
      * Other (please specify): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    - If you need to work on the client’s **articulation**, which of the following techniques and devices would you use? *[always, usually, sometimes, never]*
      * Prosthesis (e.g. bite block)
      * Nonspeech oromotor exercises (NSOMEs) (e.g. strength training)
      * Stretching
      * Relaxation
      * Instrumental biofeedback
      * Traditional articulation approaches (e.g. integral stimulation, phonetic placement, phonetic derivation)
      * Combination of nonspeech oromotor exercises and traditional articulation approaches
      * Other (please specify): \_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + **Global aspects of speech production** 
    - If you need to work on the client’s **speech rate**, which of the following techniques would you use most frequently? *[always, usually, sometimes, never]*
      * Delayed auditory feedback
      * Pacing devices (e.g. pacing board, metronome)
      * Alphabet board/ alphabet supplementation
      * Hand or finger tapping
      * Rhythmic cueing
      * Cued meter strategy (e.g. underlining written words)
      * Visual feedback to display rate
      * Other (please specify): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    - If you need to work on the client’s **prosody**, which of the following techniques would you use? *[always, usually, sometimes, never]*
      * Working at the level of the breath group (i.e. the prosodic pattern during a single exhalation)
      * Contrastive stress drills
      * Referential tasks
      * Working across breath groups
      * LSVT
      * Traditional speech drills
      * Other (please specify): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + I routinely use **manualised treatment programs** in my treatment of dysarthria *[strongly agree, agree, not sure, disagree, strongly disagree]*
* Please number the treatment programs you use from most often (1) to least often (5)
  + - * LSVT
      * Living with Dysarthria
      * Be Clear
      * La Trobe University Smooth Speech Program
      * Other (please specify): \_\_\_\_\_\_\_\_\_\_\_\_\_\_
    - I complete the program as specified in the manual *[Yes / No]*
      * If no, why? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + **Communication oriented management**

*[strongly agree, agree, not sure, disagree, strongly disagree]*

* + - I always provide **speaker strategies** when treating a client with non-progressive dysarthria. Speaker strategies are strategies that the person with dysarthria can do to increase the comprehensibility of their speech, and may include getting the listener’s attention before speaking and setting the context and identifying the topic etc.
    - I always provide **listener strategies** to communication partners of the client with non-progressive dysarthria. Listener strategies may include teaching the communication partner to modify the environment and listen attentively etc.
    - I always provide **interaction strategies** to the client and their significant communication partners during the treatment of nonprogressive dysarthria. Interaction strategies include ensuring eye contact is maintained between the listener and speaker, selecting a conducive speaking and listening environment, and identifying breakdowns and establishing methods for feedback etc.
  + **Alternative and augmentative communication** 
    - If AAC is part of your intervention:
      * What methods of AAC are used: *(please tick)*
        + Low tech –

communication boards

pictures

alphabet supplementation

topic supplementation

gestures

a combination

other (please specify): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* + - * + High tech – *(please tick)*

speech generating devices

eye tracking technologies

switch interfaces for scanning (AAC article)

other (please specify): \_\_\_\_\_\_\_\_\_\_\_\_\_\_

* + - * When will you provide AAC to clients: *(please tick)*
        + when the client is unintelligible
        + when the dysarthria is severe
        + to supplement speech
        + for use in certain environments
        + as a last resort
        + other (please specify): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + **Motor learning principles**
    - I usually consider the principles of motor learning when I am devising my intervention strategies.
      * Yes
      * Not sure
      * No
      * Comment: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*[strongly agree, agree, not sure, disagree, strongly agree]*

* + - I believe that **carefully selecting** and **ordering stimuli** throughout the treatment program is important
    - I believe that increased **intensity** (frequency of sessions, repetitions within sessions) correlates with increased learning.
    - I generally use **constant practice** over **variable practice** during treatment.
    - I prefer to use **massed practice** rather than **distributed practice** during a session.
    - I routinely use **random practice** rather than **blocked practice** with the client.
    - I routinely use **salient stimuli and treatment** tasks during treatment.

*Feedback – knowledge of results vs. knowledge of performance*

* + - I always consider the **type of feedback** I give in my treatment sessions.
    - When giving feedback, I always let clients **know the results** at the end of a task.
    - When giving feedback, I always let clients know how they have **performed** on a task.
    - I consider the **frequency of feedback** when I am devising a speech programme.
    - I consider the **timing of feedback** (instantaneous or delayed) when planning interventions.
    - I believe that **delayed feedback** steadily increases performance improvements.
    - I do not believe that it is necessary to consider how you structure your feedback in advance of a session.
  + **Nonspeech oral motor exercises** 
    - How often will you use nonspeech oral motor exercises in the treatment of nonprogressive dysarthria? *[often, never, always]*
    - Which one (1) statement best describes your use of NSOMEs with clients with non-progressive dysarthria?
      * I use NSOMEs as a warm up and spend the rest of the therapy using other therapy approaches
      * I use NSOMEs in combination with other treatment approaches, with NSOMEs being used to a lesser extent than other treatment approaches
      * I do not use NSOMEs to target speech production.
    - Do you use any of the following during the treatment of nonprogressive dysarthria? *(please tick)*
      * Tongue elevation/depression
      * Tongue protrusion/retraction
      * Tongue lateralisation
      * Tongue ‘push ups’
      * Lip rounding
      * Pucker-smile alternations
      * Jaw lateral/vertical movements
      * Blowing for respiratory function
      * Sucking
      * Thermal stimulation
      * Tactile stimulation
      * Other (please specify): \_\_\_\_\_\_\_\_\_\_\_\_\_\_
    - I use nonspeech oral motor exercises to improve:
      * Tongue strength
      * Tongue range of motion
      * Lip strength
      * Lip range of motion
      * Jaw strength
      * Jaw range of motion
      * Coordination of articulators
      * Awareness/placement of articulators
      * Velopharyngeal competence
      * Respiratory function
      * Other (please specify): \_\_\_\_\_\_\_\_\_\_\_\_\_\_
    - Please state your level of agreement with the following statements:
      * If intervention does not work directly on speech, speech will not improve
      * Non-speech oromotor exercises need to be repeated several times in order to achieve change.
  + **Frequency & Length of Intervention Sessions** 
    - If you provide active dysarthria rehabilitation services to your patients, on average, how frequent are your sessions?
      * Once a month
      * Once fortnightly
      * Once weekly
      * More than once weekly (please specify the number of sessions in the open response field below)
      * Daily
    - On average, what is the duration of the sessions you provide?
      * 15 minutes
      * 30 minutes
      * 45 minutes
      * 1 hour
      * >1 hour
    - How is dysarthria therapy generally performed?
      * Speech-language pathologist to supervise
      * Speech-language pathology assistant to supervise
      * Nursing staff to supervise
      * Carer to supervise
      * Independent without supervision
      * By telehealth
      * Group therapy
    - How many therapy techniques are generally prescribed per session?
      * Usually **1 technique** (e.g. inspiratory muscle strength training for respiration)
      * Usually **2-3 techniques**
      * Usually **2-3 techniques/strategies**. Strategies include speaker, listener or interaction strategies.
      * **More than 3 techniques**
      * **More than 3 techniques/strategies**.
      * Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + What proportion of your patients would you estimate improve as a result of their direct therapy program?
    - All – 100%
    - Most – 75%
    - Half – 50%
    - Some – 25%
    - None – 0%
* What are the challenges that you find in working with people with non-progressive dysarthria? *[free text]*
* If you had to make one change to how you work with people with non-progressive dysarthria what would it be? *[free text]*