

WORD Therapy Guide for Clinicians (Best, Hughes & Shobbrook, 2015)

For further information about the research, please see

<https://sites.google.com/site/wordfinding/>

<p>Project information</p>	<p>This document was developed as a result of a research study investigating the use of phonological and semantic cues in therapy for children with word finding difficulties. The study involved delivering therapy to 20 children aged from six to eight years identified as having word finding difficulties using the Test of Word Finding 2 (German, 2000). Semantic or phonological cues were separated in different therapy conditions and children received one type of therapy (semantic or phonological) for six weeks, followed by the other after a six week break. The results of the project are on the basis of phonological and semantic cues being delivered separately, as described below. The following is a description of the therapy delivered for the research study: if you adapt this programme for clinical use, we would be interested in hearing from you. This document is intended as a 'step-by-step' guide and you may find it easier to study the relevant section in detail as you conduct the sessions.</p>
<p>Principles</p>	<ul style="list-style-type: none"> • The primary aim is for children to value and enjoy the WORD therapy, in the context of their previous experience of word-learning and word-finding, which they are likely to have found frustrating. • For many children, their word-finding difficulties occur in the context of wider communication needs which may affect receptive language, expressive language and attention. The therapist takes account of each child's language level and wider needs during the intervention. • A further key aim is for children to develop strategies that they can use independently by the end of the intervention whenever they are unable to retrieve words. This aim is designed to be achieved gradually as the therapy progresses. In early sessions the child is becoming aware of the features of words and in later sessions exploring how they can best help themselves when

	<p>they become stuck.</p> <ul style="list-style-type: none"> • When using word webs, the goal is for the child to be working towards producing the correct name by generating features and ‘thinking around the word’. With this in mind, the therapist does not provide the word form for the child until the final naming attempt. • As therapy progresses, the intention is for activities to become more meta-cognitive (see Phase 2, below) and communicative (see Phases 3 and 4). The principles of encouraging reflection on word-finding strategies and on using words to communicate run through the programme and will help therapists determine how to respond to each individual child. • It is important for therapists to have close guidance when delivering the WORD interventions to ensure that therapy is delivered consistently, according to the protocol. During the WORD Research Project, this included peer shadowing and observing videos of both early and later-stage sessions.
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<p>Background details</p>	<ul style="list-style-type: none"> • Sessions occur once a week for six weeks. Approximately 25 mins are spent on pure therapy activities, e.g. word webs and barrier games. Up to 15 minutes extra is allocated to naming probes, generating ideas for additional items to work on and short breaks between tasks. • Up to 30 items are treated each half term. These should be chosen with the children and/or their carers/teachers to ensure maximum functional benefit. It is advisable for words to be selected according to the child’s interests and/or the school curriculum. From our experience on the WORD Project, it is best to avoid introducing words that are closely related, either in meaning or phonology, during the same therapy block. • Name all target words at the beginning of each session (include all each time, regardless of success with previous attempts, as the nature of word-finding difficulties means children’s ability to access words 	<p>Materials</p> <p>Hard copy pictures of all therapy items for naming probes at start of sessions.</p> <p>Naming probe record sheets</p> <p>‘Comedy buzzer’ for child to press when unable to name an item.</p>
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	<p>may vary from session to session). Do not give specific feedback on individual items at this stage, but provide general encouragement. It is advisable to alternate between 4 different randomised orders of naming probes (forwards, backwards, forwards from half-way through and backwards from half-way through), as people tend to recall the first and last items in a series best, and the middle items worst.</p> <ul style="list-style-type: none"> • A comedy buzzer may be used as a fun/motivating device for children to press when they cannot name, or wish to pass on an item. This is to reduce frustration at being asked to repeatedly name items without feedback. • If any of the therapy items is named correctly at the start of the session, then that item will not be treated on that day. • Therapy items will be treated in a continuous, cyclical order, aiming to cover at least as many items as in the previous session. Start with words previously not worked on and continue through as many as possible, returning to those covered previously if time allows. • Length of therapy activities will be fairly constant throughout (usually under 30 minutes), regardless of how many items are covered. • Ideally, all sessions should be video-recorded to ensure the child's progress is correctly recorded and to allow the therapist to seek feedback on the delivery of sessions through supervision and/or peer support. • If the child offers information spontaneously, e.g. gestures or writing the word, do not specifically inhibit or encourage responses in different modalities. Just accept the correct information without commenting further. The therapist may offer alternatives if the child appears stuck and follow the child as to their preferences for 	<p>Fun game, e.g. jacks, tiddlywinks, pick-up sticks for child to play as quick 'brain break' while therapist prepares and organises therapy items.</p> <p>Hard copy of semantic / phonological 'word webs' for all therapy items.</p> <p>Record sheets, including tick charts for monitoring participants' production attempts and overall response to therapy.</p> <p>Alphabet chart needed for phonological therapy condition.</p> <p>Handheld video camera.</p> <p>Hardback book to act</p>
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	<p>providing features orally or where appropriate by gesture, drawing or writing.</p>	<p>as 'barrier' for later sessions.</p> <p>Counters and post-box, or similar, to act as reward system during barrier game phase.</p> <p>Dice for final session (if appropriate level achieved).</p>
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Therapy Phase 1

(typically, this will cover sessions 1 and 2 and any new words that need to be worked on in subsequent sessions, but therapist should be guided by how many target items a child has and / or how many are covered in each session).

<p>1. Task introduction</p>	<p>Therapist introduces naming probes by saying: <i>'You've seen these pictures before, so we're going to look through them quickly at the start. Tell me the names for the ones you know. If there are difficult ones, just press the buzzer or leave them out. We'll come back to some of them later to help you find the words.'</i></p> <p>A brief explanation about aim of therapy task and how task works is provided as appropriate and necessary for each child, e.g.: <i>'When you can't find a word, there are some things you can think about that might help. I will show you a picture and then we will think 'around the word' together.'</i></p>	
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	<p><i>This should help you to say the word more easily. I will help you if you get stuck.'</i></p> <p>At the start of the second intervention block, where appropriate, the therapist reiterates this explanation, acknowledging and referring back to the completed block.</p>	
<p>2. Generation of features</p>	<ul style="list-style-type: none"> • The target picture is presented in the centre of a 'phonological components', or 'semantic features' analysis chart – depending on the therapy condition. • The therapist begins by introducing the chart and presenting a practise/example item. Start with the top right hexagon and progress clockwise around the chart. • Explain that features are generated in a set sequence. If a feature is not relevant for a particular item, move on to next feature, e.g. for the target "lion", the feature 'use' would not be applicable. • Features may be spoken, written, drawn or gestured, or any combination of these. The therapist gives positive feedback for accurate content and notes the child's production on the record sheet. • One feature per hexagon is acceptable, though some may contain more than one appropriate response. • Where a child produces very imprecise or general information the therapist will encourage them to provide a more specific word feature. • If the client produces a feature out of sequence, the SLT writes it on the chart, but resumes eliciting features in canonical order (see below). 	<p>Materials</p> <p>Semantic or phonological 'word web' templates.</p> <p>Target pictures (including practise item).</p> <p>Tick chart/record sheets.</p> <p>Alphabet card</p>

- For each feature to be generated, a prompt question is initially used.
 - If the child is unable to produce a feature within approximately 5 seconds, or gives vague/inappropriate information, the SLT then provides a 'forced choice' prompt, e.g. *'Is it an animal or a vegetable?'* , *'Does it start with /t/ or /k/?'* (see choices on record sheet).
 - If participant still can't produce a feature within approximately 5 seconds, the therapist says the feature name and writes this on the chart.
 - Then proceed to the next category.

N.B. The therapist tries to avoid naming the word until the final naming probe (see below). During the research project, care is taken to avoid providing semantic information during the phonological condition and vice versa.

Semantic condition (do not target these features during phonological therapy):

(i) Superordinate / group

Prompt question: *'What type of thing is it? / What group does this belong to?'*

(ii) Appearance

Prompt question: *'What does it look like? / what's it made of?'*

(iii) Location

Prompt question: *'Where do you find it?'*

(iv) Use

Prompt question: *'What do you use it for?'/ 'Can you show me what you do with it?'*

(v) Action

Prompt question: *'What does it do?'*

(vi) Association

Prompt question: *'What other things could go with / be linked with this picture?' OR 'Does this picture make you think of anything else?'* N.B. We are aiming here for semantic associates, e.g. dog and bone, rather than category coordinates, e.g. dog and cat.

Phonological condition (do not target these features during semantic intervention):

(i) First sound

Prompt question: *'What sound does it start with?'*

(ii) First sound associate

Prompt question: *'What other words start with the same sound?'*

(iii) First letter

Prompt question: *'What letter does it start with?' (Show alphabet card)*

(iv) Number of syllables

Prompt question: *'How many claps, or beats, does the word have?' (First give examples using the child's name / their teacher's name).*

(v) Rhymes

Prompt question: *'What does it rhyme with?' (Give practise examples first)*

	<p>(vi) Links with different syllables / ways of remembering (<i>only use for words with two or more syllables</i>).</p> <p>Prompt question: ‘<i>Can you break the word into any smaller words or sounds that will help you remember the name?</i>’ (give example, e.g. <i>pentagon = pen-ta-gone</i>)</p> <p>Child may wish to draw pictures to help them remember how to break item down.</p> <p>N.B. This is not appropriate for single syllable words and may be omitted.</p>	
<p>3. Review of features for a word</p>	<p>The therapist reviews all features of the target, (e.g. for ‘dog’ in semantic condition: ‘it is an animal; it’s furry; you find it in a kennel; you use it for guarding; it barks; it goes with bones.’ For phonological condition: ‘it starts with /d/; ‘door’ also starts with /d/; the first letter is .D.; dog has one clap (syllable). It rhymes with ‘fog’”.</p>	
<p>4. Final naming attempt</p>	<p>Following the review of semantic OR phonological components, the child is once again asked to name the target. If correct, the therapist provides positive feedback and says ‘Yes, that’s right. It’s a _____. If incorrect, the correct response is provided and the child is encouraged to repeat it. This results in the provision of the correct name twice (one by the child and once by the therapist), whether or not the child could name the item without support.</p>	

Therapy Phase 2 (Metacognitive awareness)

Move onto this phase when child is familiar with the process of using word webs and / or has worked on some or most target items in previous sessions.

(This would typically be around session 3.)

<p>1. Task introduction and set up</p>	<p>Encourage child to reflect on what aspects of word webs are most helpful to them, rather than moving systematically through each hexagon of the word web, e.g.:</p> <p><i>'Now you've got used to finding these words – if there are some difficult ones, you can tell me the different things about a word that will help you find it. I will help you if you get stuck.'</i></p>	<p>Semantic or phonological 'word web' templates – both blank for new words and those filled in from previous weeks.</p> <p>Target pictures</p> <p>Tick chart/record sheets.</p> <p>Alphabet card for phonological condition.</p>
<p>2. Generation of features</p>	<ul style="list-style-type: none">• As above for new words.• For words previously worked on, review features from previous week and invite child to add any new ideas / information to help them remember words.	

3. Review of features	As above	
4. Final naming attempt	As above. <i>Where appropriate draw attention to the features a child has found helpful when trying to retrieve the word.</i>	

Therapy Phase 3 (Barrier games)

Move onto this phase when child is confident using charts and has covered most target items in previous sessions (typically around session 4).

N.B – It may be appropriate to be working on some familiar items at this level, but at an earlier level for words not already covered.

1. Task introduction / set-up	<p>After naming probes, divide the target words into those to be described by the therapist and those by the child (initially, try to give child more familiar words to describe).</p> <p>Put the barrier up between adult and child and give brief explanation of the task, e.g.:</p> <p><i>‘Now you’ve got used to thinking about these words, we’re going to play a game. No one should look the other side of this screen. The idea is for us</i></p>	The barrier can be a hardback book, large piece of card, an A3 landscape ringbinder file etc.
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	<p><i>to take turns and tell each other things about a word to see if the other one can guess.'</i></p>	
<p>2. Task description</p>	<p>The therapist models the task by starting to describe an item, using the cues generated by, or with, the child in previous therapy sessions.</p> <p>It is not essential to progress around the web in a set order. Encourage the child to think about which cues help them to find the word (see 'step up' section, below).</p> <p>If, once all the cues have been covered, the child is unable to name the word, remove the barrier and review the word as in previous sessions, ending with a final attempt and naming and/or repetition if the child still cannot produce the target.</p> <p>Once the adult has modelled one or two items, it is the child's turn to describe a target word.</p> <p>For this, they will need the word webs completed in previous weeks, to use as a prompt / reference. At first, the therapist should encourage them to work through systematically, providing a clue for each hexagon. Note the nature of the clues provided by the child.</p> <p>At the end of their turn, it may be appropriate for the SLT to review the word (using completed word web from a previous session), before asking child to name the item (or repeat if they are unable to do so). But this</p>	<p>Semantic or phonological 'word webs, filled in from previous weeks. Tick chart/record sheets.</p> <p>Optional 'token system' to be used as a motivator, i.e. child to place counter in a post-box/toy TARDIS or similar for every clue successfully given or guessed.</p>

	<p>should not detract from the ‘game-like’ nature of the task, or place undue emphasis on production of the target form.</p> <p>NB A token system may be used as an additional motivator for this task, i.e. child to place a counter in a post box / toy TARDIS or similar for every clue successfully given or guessed. These can then be counted at the end to find the winner of the game.</p>	
<p>3. Stepping up the task</p>	<p>If the child has managed well with the barrier games task on Time 1, the SLT can modify the activity in subsequent sessions. Rather than requiring the child to go round providing clues systematically (i.e. having to generate a clue for each feature, or hexagon), the child can be asked to <i>‘just tell me one or two things about the word to help me guess it’</i>, or <i>‘tell me your best clue about the word’</i>. This is particularly appropriate if the child is describing a word that has come up the previous week.</p>	
<p style="text-align: center;">Therapy Phase 4 (Dice game and identifying most helpful word-finding strategies)</p> <p>This can be used in the sixth and final session of each therapy block if the child has previously played the barrier game with confidence and has only a few target items left to work on. <i>If the child is still engaged by the therapy with the barrier game the dice game may not be necessary.</i></p> <p><i>N.B. – It may be appropriate to be working on some familiar items at this level, but at an earlier level for words not already covered.</i></p>		
<p>1. Task introduction / set up</p>	<p><u>Dice game:</u></p>	<p>Semantic or phonological ‘word</p>

	<p>First, divide up previously-completed word webs for items worked on in previous sessions and not named correctly by child in that day's naming probe.</p> <p>Place half the items face down in front of child and the other half face down in front of the adult.</p> <p>Position the barrier in between.</p> <p>The adult then gives brief explanation of the task, e.g.:</p> <p><i>'Do you remember last week how we took turns to describe words for each other to guess? Well, today we have a slightly different game and we're going to use this dice.</i></p> <p><i>We will each take turns to roll the dice. If it lands on a 1,3,4 or 6, you need to turn over your top picture and give your best clue about the word for the other person to guess.' If you throw a 2 or a 5, I will give you a funny thing to do, like pat your head and rub your tummy; turn around and touch your toes etc.'</i> The aim of including this humorous element is to maximise the child's enjoyment and motivation for the task. Activities can be tailored to the child's individual interests / personality and language level.</p> <p>The therapist then models a turn of the game. All other rules are the same as in the barrier activities (see previous therapy phase).</p> <p><u>Identifying helpful strategies:</u></p>	<p>webs' from previous weeks</p> <p>Tick chart/record sheets.</p> <p>Dice</p> <p>Optional list of 'funny things' for child to do in between word descriptions (see task description).</p>
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	<p>At the end of the final therapy session (i.e. at the end of Block 2), the child should be supported to reflect on which strategies were most helpful for helping them to remember words and/or get their message across to the listener when stuck. Once agreed, the child depicts these, with help, onto a cue card (using words and/or pictures as a reminder). The aim is for this activity to be child-led, however they may need reminding of details – particularly ideas from the first block of therapy.</p> <p>The therapist should help the child prioritise so that they end up with a list of 3 – 5 ‘top tips’, which can be taken away for their own reference once the therapy has finished. The most helpful strategies are summarised as part of the child’s final report which is passed on to a parent, teacher and/or TA after the end of the intervention.</p>	<p>Cue card for recording child’s ‘top tips for word-finding’</p>
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Record keeping:

The therapist will complete a record of the number of times a child produces each item within a therapy session, using a tick chart, which forms part of the record sheet (fill in unobtrusively or from video after session to avoid influencing the child – i.e. by inadvertently indicating that they were ‘correct’ about a word and thereby encouraging them to repeat more).

Therapy Phase 1

- Where a child produces very imprecise or general information, *half a point is awarded on the record sheet* and the therapist will encourage them to provide a more specific word feature.

Therapy Phase 3

- Use therapy record sheets to note the child’s correct and incorrect attempts at producing the word after each clue is given.
- SLT uses record sheet to record the clues provided by the child

References:

Boyle, M. and Coelho, C.A. (1995). Application of semantic feature analysis as a treatment for aphasic dysnomia. *American Journal of Speech Language Pathology*, 4, 94-98.

Leonard, C., Rochon, E. and Laird, L. (2008). Treating naming impairments in aphasia: Findings from a phonological components analysis treatment. *Aphasiology*, 22 (9), 923-947.

German, D. J. (2000) *Test of Word Finding – Second Edition (TWF-2)*, Pearson

Clinically-used word webs / 'Walk the word', e.g.: <http://en.commtap.org/additional-resource/word-web-resources>

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Additional reference for WORD project

Best, W., Hughes, L., Masterson, J., Thomas, M. S. C., Howard, D., Kapikian, A., Shobbrook, K. (2021) Understanding differing outcomes from semantic and phonological interventions with children with word-finding difficulties: A group and case series study, *Cortex*, 134, p. 145-161, DOI: 10.1016/j.cortex.2020.09.030.