

A Novel Vocabulary Intervention for Poor Comprehenders: A single case study

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Abstract

Poor comprehenders have difficulty with reading comprehension despite adequate word reading accuracy and fluency. Weaknesses have been identified with lower-level vocabulary and grammar skills, and higher-level language skills such as inference making. It is important that speech-language pathologists (SLPs) tailor intervention to meet the specific needs of individuals; however, there is a lack of research on intervention for poor comprehenders, who comprise a heterogeneous group. This case study aimed to explore whether a pilot 8-week novel vocabulary intervention was (a) effective in improving word knowledge, and (b) if gains generalised to reading comprehension. Following intervention, significant improvements were found on the semantic subtasks and in word knowledge for treated words on the Word Knowledge Profile measure; improvement was also seen for untreated words at six-month follow-up. There were also gains on the standardised word and reading comprehension measures, providing promising preliminary evidence for the usefulness of the intervention.

Keywords: vocabulary intervention, poor comprehenders, reading comprehension, case study

Poor comprehenders are a subgroup of poor readers who have difficulty understanding what they read despite being able to decode words fluently and accurately. Prevalence rates have varied depending on the selection criteria and the age of the participants, but more recent research, with large cohorts, has identified 5 – 7% of children as poor comprehenders (e.g., Clarke et al., 2010; Elwér et al., 2015; Hulme & Snowling, 2011). These children comprise a heterogeneous group, as not all poor comprehenders perform well or poorly on the same oral language tasks (Nation et al., 2010). Broadly, there are (1) those who have difficulty with lower-level language skills (vocabulary, morphology, and grammar) which impacts on understanding the meaning of sentences and, in turn, texts, and (2) those who have difficulty with higher-level language skills (inferencing, understanding of text structure, and comprehension monitoring) needed to create a mental model of a text's meaning (see Cain, 2010 for an overview).

Vocabulary Skills in Poor Comprehenders

Weak vocabulary skills are widely accepted as contributing to poor reading comprehension; however, available evidence indicates that not all poor comprehenders have inadequate vocabulary. In many of their studies, Oakhill, Cain and colleagues used receptive vocabulary tasks as part of the selection of their groups of poor comprehenders, predominantly aged 7-8 years (e.g., Cain et al., 2004; Yuill & Oakhill, 1991). These children were matched to controls with age-appropriate vocabulary and reading accuracy but differing levels of reading comprehension on the Neale Analysis of Reading Ability – Revised British Edition (NARA: Neale, 1989), indicating that receptive vocabulary was not weak in these poor comprehenders.

Some studies have tested receptive vocabulary but not used these measures to select participants. In these studies, poor comprehenders generally performed significantly below good comprehenders, although not necessarily scoring in the below average range (e.g., Adlof & Catts, 2015; Cain & Oakhill, 2006). This difference has been identified in kindergarten children in longitudinal studies and shown to persist across school years (e.g., Elwér et al., 2015). Tests of receptive vocabulary measure vocabulary breadth, or how many words a person knows, in contrast to tasks measuring vocabulary depth: knowledge about the relations or associations between words—that is how words are organised semantically in the mental lexicon (Cain, 2010). Poor comprehenders have weaker skills, compared to controls, at a group level on tasks assessing vocabulary depth such as semantic fluency, providing word definitions and multiple meanings, and explaining word relationships (Adlof & Catts, 2015; Nation et al., 2004; Nation et al., 2010; Nation & Snowling, 1998). When task scores are examined at an individual level, however, variability is seen across the groups and the tasks, and not all children have vocabulary deficits (Colenbrander et al., 2016; Nation et al., 2004).

Impact of Vocabulary Intervention on Reading Comprehension

The effectiveness of vocabulary interventions on increasing comprehension in children has been investigated extensively. In a review of published experimental and quasi-experimental studies evaluating vocabulary instruction prior to 2000, the National Reading Panel (NRP: NICHD, 2000) concluded that instruction was generally effective in improving comprehension. The types of instruction in the studies included in the review were varied, however, and excluded studies involving only students with learning disabilities (Elleman et al., 2009). Recommendations for instruction were provided based on the results, including

providing explicit instruction and having students actively engage in learning new vocabulary from context. Based on the findings of their review, the NRP also recommended that non-standardised assessment instruments matched to instruction were needed for efficacy of instruction to be measured. In relation to which words should be selected for instruction, it was suggested that words should be those that the learner would encounter sufficiently often and find useful in many contexts (NICHD, 2000). Beck et al. (2013) refer to these words as Tier 2 words: words beyond the basic level that are characteristic of written text but not oral conversation.

Meta-analyses conducted by Elleman et al. (2009) and Wright and Cervetti (2017) both included several studies with children identified as having reading difficulties. The meta-analyses included 37 and 36 studies, respectively, that met selection criteria. The studies focused specifically on the effect of vocabulary instruction on passage-level comprehension in children across grades pre-K to 12, with the majority focused on grades 3-5. Elleman et al. (2009) found that children with and without reading difficulties made gains from instruction on both custom and standardised vocabulary measures, but that comprehension only increased on custom text comprehension measures containing target words. Gains on custom measures, but a lack of transfer to improvement on standardised comprehension measures, was also found by Wright and Cervetti (2017). Elleman et al. (2009) were unable to identify any specific vocabulary techniques or interventions that were more effective than others in improving comprehension. Wright and Cervetti (2017), however, found that instruction focused on active exploration of the meaning of words typically had greater impact on developing vocabulary to support comprehension of texts containing target words, than treatments where students were given word definitions or searched word meanings up in dictionaries.

Very few studies have examined the effect of vocabulary intervention on the reading comprehension skills of poor comprehenders. In a study with 7 to 8-year-old children identified as having poor vocabulary, although it is not clear from the data if they were poor comprehenders, Nash and Snowling (2006) investigated the effect of two vocabulary teaching methods on vocabulary knowledge and reading comprehension. One method involved teaching word definitions, and the other teaching a strategy to derive meanings from context clues in the text. Both methods resulted in significant gains in knowledge of taught words post-intervention but, three months later, the context group were significantly better at expressing word meanings and comprehending texts containing taught words. Clarke et al. (2010) conducted a randomized controlled trial that examined the efficacy of three

intervention programmes in improving the reading comprehension of poor comprehenders aged 8 to 9 years. One programme trained oral language skills (vocabulary, listening comprehension, figurative language, and oral narrative), the second targeted these skills in written texts, and the third combined elements of both. All resulted in significant improvements on a standardised reading comprehension measure post-intervention compared with a waiting control group. These gains were maintained at 11-month follow-up, with the oral language group making further gains compared with the other two. As these were multi-component interventions, it was difficult to determine the essential component(s) that may have produced the change in reading comprehension. However, the oral language and combined programme groups also made significant gains on the vocabulary knowledge measures post-intervention, and a mediation analysis revealed that these gains either partially or fully accounted for the improvements in reading comprehension at the 11 month follow-up (Clarke et al., 2010).

The current study

The case reported here was part of a larger research programme exploring the identification, profiling, and subsequent targeted intervention with individual poor comprehenders. As reported in Kelso et al. (2020), 24 children were identified as poor comprehenders following a two-phase testing protocol, and 17 subsequently completed detailed profiling of their oral and written language, and cognitive processes (Kelso et al., 2021b). Only two of the 17 children had difficulty on multiple lower-level oral and written vocabulary and grammar comprehension tasks; the remainder having difficulty with higher-level discourse comprehension (intervention study reported in Kelso et al., 2022a).

We identified few studies investigating the effect of vocabulary instruction on the reading comprehension of poor comprehenders. The study by Clarke et al. (2010) included multiple components but suggested that the gains in vocabulary mediated subsequent improvements in reading comprehension. We developed and evaluated a theoretically informed and individually targeted intervention that focused on actively developing vocabulary depth using a semantic organisation approach.

The aims of this case study were to:

- i. explore whether a pilot programme utilising a novel vocabulary intervention was effective in improving word knowledge at both an oral and reading single word level, and
- ii. investigate generalisation of any therapy gains to improvement in reading comprehension.

Table 1*Background Assessment Data*

Measure	Phonological Skills/ Word Reading		Lower-level Vocab/Grammar		Discourse-level Comprehension	
	Oral	Reading	Oral	Reading	Oral	Reading
CTOPP-2 Elision ^a	9					
CTOPP-2 PI ^a	9					
CTOPP-2 RN Letters ^a		11				
CTOPP-2 Total ^b		107				
WIAT-II Pseudowords ^b		100				
WIAT-II Word Reading ^b		94				
TOWRE-2 Total ^b		88				
YARC-P Accuracy ^b		93				
PROBE-2 F Accuracy ^c		99				
PROBE-2 NF Accuracy ^c		96				
PPVT-4 ^b			85			
CELF-4 WC Receptive ^a			8			
CELF-4 WC Expressive ^a			10			
CELF-4 Word Definition ^a			5			
CELF-4 Associations ^d			F			
WRMT-III Word Comp ^b				73		
TROG-2 ^b			83			
CELF-4 Concepts ^a			4			
CELF-4 Sent Assembly ^a				6		
NSSRT Sentence Comp ^b				95		
CELF-4 USP ^a					5	
TNL Comprehension ^a					5	
TNL Narrative ^a					4	
CASL Nonliteral Lang ^b					70	
CASL Inference ^b					71	
TOPS-3 Total ^b					81	
YARC-P Comprehension ^b						75
PROBE-2 F Comp ^c						20
PROBE-2 NF Comp ^c						0

Note. CTOPP-2 = Comprehensive Test of Phonological Processing-2; PI = Phoneme Isolation; RN = Rapid Naming; WIAT-II = Wechsler Individual Achievement Test-II – Australian Edition; TOWRE-2 = Test of Word Reading Efficiency-2; YARC-P = York Assessment of Reading for Comprehension-Primary - Australian Edition; F – Fiction; NF = Nonfiction; PPVT-4 = Peabody Picture Vocabulary Test-4; CELF-4 = Clinical Evaluation of Language Fundamentals-4 – Australian Edition; WC = Word Classes; WRMT-III = Woodcock Reading Mastery Tests-III; Comp = Comprehension; TROG-2 = Test for Reception of Grammar-2; Concepts = Concepts and Following Directions; Sent = Sentence; NSSRT = New Salford Sentence Reading Test; USP = Understanding Spoken Paragraphs; TNL = Test of Narrative Language; CASL = Comprehensive Assessment of Spoken Language; Lang = Language; TOPS-3 = Test of Problem Solving-3.

Shaded = Outcome Measures used in this study

a = Scaled Score; b = Standard Score; c = percentage correct; d = pass/fail criterion

Method

Two participants with lower-level language difficulties on profiling were invited to participate and one agreed. Ethical approval was granted by Curtin University Human Research Ethics Committee (HRE2016-0438-01) and the Government of Western Australia Department of Education.

Participant

Danni (pseudonym) was in Year 5 (aged 10;0 years) at the time of entry into the study, and 11;6 years in Year 6 at the commencement of the intervention. Danni was not exposed to English until adopted at age 5; however, since then, Australian English has been the only language spoken. Table 1 shows the profile of Danni's oral language and reading skills from the background assessment. Results on the nonverbal IQ and memory tasks are in Table 2, and further details of each test can be found in Kelso et al. (2021).

Table 1

Results of Nonverbal IQ and Memory Tasks

Measure	Score
TONI-4 Nonverbal IQ ^a	99
CTOPP-2 Nonword Repetition ^b	6
CELF-4 Number Repetition-Forwards ^b	14
CELF-4 Number Repetition-Backwards ^b	9
CELF-4 Recalling Sentences ^b	8
Competing Language Processing Test ^c	43

Note. TONI-4 = Test of Nonverbal Intelligence-4; CTOPP-2 and CELF-4 (see Table 1) a = Standard Score; b = Scaled Score; c = percentage correct

Procedure

All sessions took place in the first author's clinic. Word selection was carried out 2 months prior to the commencement of intervention, at the same time as the pre-intervention testing on these standardised tasks: Woodcock Reading Mastery Tests–3rd edition (WRMT-III Form B) Word Comprehension (Woodcock, 2011), York Assessment of Reading Comprehension Primary – Australian Edition (YARC-P: Snowling et al., 2012) and Clinical Evaluation of Language Fundamentals–4th Edition, Australian Edition (CELF-4)¹ Word Definitions (Semel et al., 2006). The first two of these tasks were readministered 2 months after intervention and followed up 6 months later to assess maintenance of any change, and CELF-4 Word Definitions at the 6-month follow-up only. The Word Knowledge Profile

¹ CELF-4 was current at the time of data collection

(Spencer et al., 2017) was administered immediately prior to intervention (Time1), immediately following (Time2), and 6 months later (Time3).

Figure 1

Word knowledge chart based on Beck et al. (2013)

<u>Word Knowledge Categories</u>	
0. Do not know the word at all	
1. Have seen or heard the word	the intervention, the first author read each of the Level 2 fiction texts (decoding age 10-12 years in line with Danni's decoding level) from KEY into inference and KEY into evaluation (Parkin et al., 2002; 2005) to identify Tier 2 words (Beck et al., 2013). A total of 102 words were selected from five texts. Danni was asked to tick the category that applied for each word
2. Know something about it, can relate it to a situation	
3. Know it Well, can explain and use it	

using the word knowledge chart based on Beck et al. (2013) as shown in Figure 1. Twenty-six words rated 0-2 were selected as treated words (nine nouns, eight verbs, nine adjectives/adverbs). Each of these was matched as closely as possible with a word from the same category and part of speech. These served as untreated control items.

Intervention. The intervention consisted of two 30-min sessions per week over 8 weeks. It was developed to contain the same overall amount of intervention time (450 min) as the higher-level language intervention conducted as part of this research programme (Kelso et al., 2022a), and based on the structure (length of sessions and number of words taught per session) used by Nash and Snowling (2006).

In the initial session, the structure of the sessions was explained, followed by the participant reading the first text and answering the comprehension questions to provide context for the treated words. In each treatment session, two words from the text were explored, and the participant was encouraged to complete take-home tasks using these words. Words from the previous session were briefly reviewed at the start of each session. When all words in a text were completed, the next text was read and the comprehension questions answered (Session 5, 8, 11, 13) prior to the introduction of the treated words for that text. The protocol for exploring each treated word is seen in Figure 2, with the same sequence followed each time.

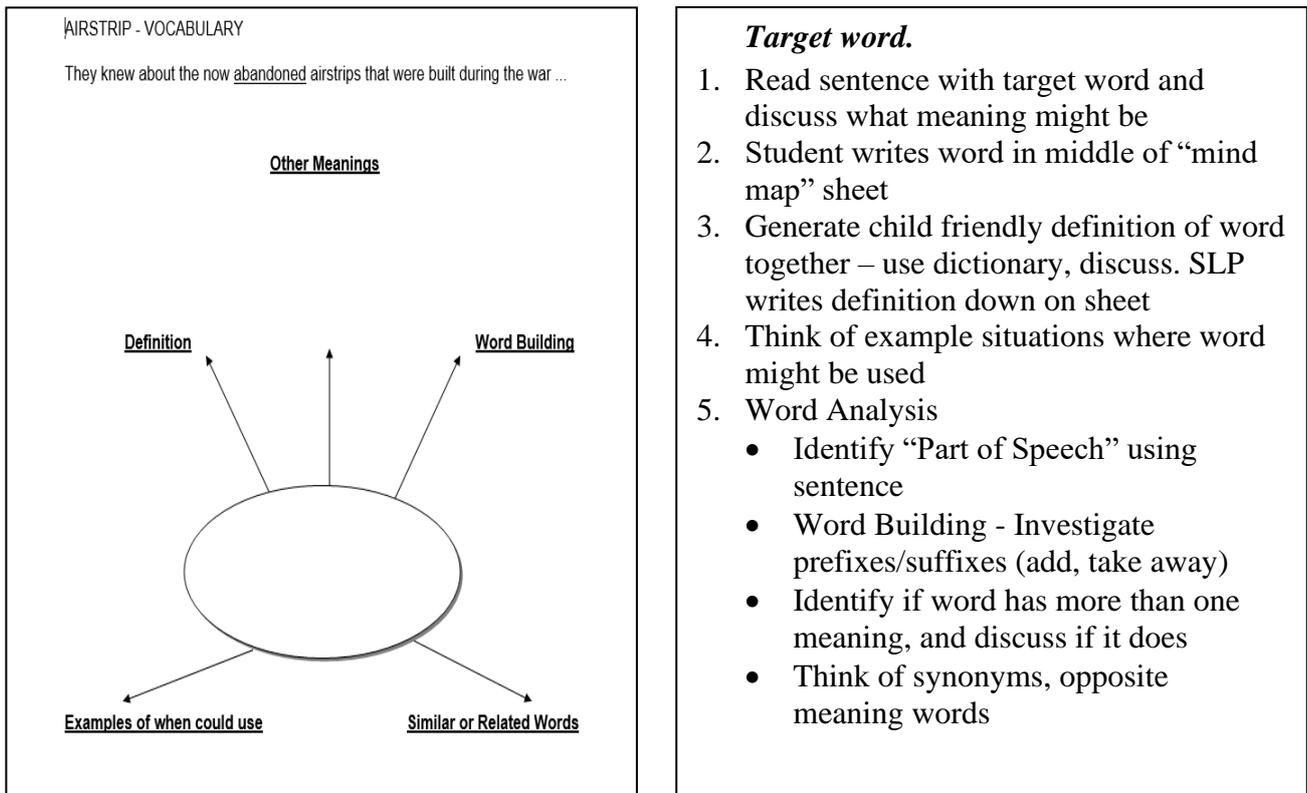
Outcome Measures

Word Knowledge Profile (WKP). This task was used as the primary outcome measure to assess change in depth of word knowledge. This profiling tool measures a participant's

phonological and semantic knowledge of individual words across eight subtasks: (1) repeat word, (2) produce rhyming word, (3) spell, (4) rate own knowledge of word, (5) use word in a spoken sentence, (6) define word meaning, (7) provide example of when/where might use word, and (8) give example of personal context of use (not used in this study). Each item was scored 0 or 1, apart from word knowledge which was rated 0-3 using Beck et al.'s (2013) categories (see above).

Figure 2

Structure for Exploration of Treated Words



WRMT-III Form B Word Comprehension. This task, standardised on a large US sample, was used as a test of reading-input vocabulary depth. It consists of three sections, Antonyms, Synonyms, and Analogies, each requiring the reading of stimuli word/s then a verbal response. Scores from each are summed to create a total raw score which is used to determine the Standard Score.

YARC-P. This is an individually administered test of two texts designed to evaluate reading accuracy, rate, and comprehension in primary school children and was used as a standardised measure of reading comprehension.

CELF-4 Word Definitions. This task was used to check change in oral-input vocabulary depth on a standardised measure. It requires the examinee to define words.

Results

Word Knowledge Profile

Table 3 sets out Danni's knowledge ratings for treated (n=26) and untreated words (n=26) (nouns, verbs, adjectives/adverbs, total) at three time points: immediately prior to intervention (Time1), immediately following intervention (Time2), and 6 months later (Time3). A Wilcoxon two sample t-test was calculated to look for significant differences between the total scores at Time1 and Time2, and Time1 and Time3. Knowledge ratings improved significantly for the treated words Time1 to Time2 ($z=3.81$, $p<.001$, two tailed) and continued to be significant Time1 to Time3 ($z=2.13$, $p=.034$, two tailed). Knowledge ratings for untreated words did not show significant evidence of change Time1 to Time2; however, they were significantly improved Time1 to Time3 ($z=3.03$, $p=.003$, two tailed).

Table 1

Knowledge Ratings across Word Classes and Time.

	Pre (Time1)				Post (Time2)				Follow-Up (Time3)															
	Treated		Untreated		Treated		Untreated		Treated		Untreated													
	N	V	A	T	N	V	A	T	N	V	A	T												
KR0	1	1	0	2	1	1	2	4	0	2	2	4	3	0	3	6	1	3	0	4	0	1	1	2
KR1	4	4	6	14	4	4	4	12	1	0	0	1	0	1	2	3	1	2	2	5	2	1	2	5
KR2	4	3	3	10	4	3	3	10	1	0	2	3	3	5	1	9	3	2	2	7	4	2	3	9
KR3	0	0	0	0	0	0	0	0	7	6	5	18	3	2	3	8	4	1	5	10	3	4	3	10

Note. KR = Knowledge Rating; N = Noun; V = Verb; A = Adjective/Adverb; T = Total

Table 4 sets out Danni's performance for treated (n=26) and untreated words (n=26) at each of the three time points across a range of subtasks on the Word Knowledge Profile (WKP). McNemar's test (two tailed) was used to explore the presence of significant change for total words on each subtask over time, comparing Time1 to Time2 and Time1 to Time3.

While performance on each of the phonological tasks (Word Repetition, Rhyme Production, Spelling) for treated and untreated words was at, or close to, ceiling prior to the intervention and remained so at each time point, significant changes were seen in the semantic subtasks for both treated and untreated words. For treated words, a significant increase was seen Time1 to Time 2 in Use in Sentences ($p=.016$), Word Meaning ($p=.039$), and When/Where examples ($p<.001$). Although raw scores continued to be higher at Time3 than at Time1 for each subtask, this only continued to be significant for use of When/Where examples ($p=.006$). For untreated words, the use of When/Where examples showed significance ($p=.016$) Time1 to Time2, while significant gains were seen for untreated words

in each of Use in Sentences ($p=.022$), Word Meaning ($p<.001$) and When/Where examples ($p<.001$) Time1 to Time3.

Table 2

Word Knowledge Profile across Tasks, Word Classes, Treatment Condition and Time.

	Pre (Time1)				Post (Time2)				Follow-Up (Time3)															
	Treated		Untreated		Treated		Untreated		Treated		Untreated													
	N	V	A	T	N	V	A	T	N	V	A	T												
WR	9	8	9	26	9	8	9	26	9	8	9	26	9	8	9	26								
RP	9	8	9	26	9	8	9	26	-	-	-	-	9	8	9	26	9	7	9	25				
SP	8	6	6	20	7	7	9	23	9	6	4	19	9	8	8	25	9	7	8	24	8	8	8	24
US	4	1	6	11	5	3	1	9	7	5	6	18*	6	7	2	15	5	3	6	14	7	7	3	17*
WM	4	2	4	10	2	3	1	6	6	4	7	17*	4	3	0	7	4	3	7	14	8	6	4	18**
WW	2	0	1	3	3	0	0	3	5	5	6	16**	4	4	2	10*	5	3	6	14**	7	6	5	18**

Note. WR = Word Repetition; RP = Rhyme Production; SP = Spelling; US = Use in Sentence; WM = Word Meaning; WW = When/ Where use; N = Noun; V = Verb; A = Adjective/Adverb; T = Total

* $p<.05$, ** $p<.01$

Standardised Outcome Measures

At pre-intervention testing, Danni's scores on the standardised oral and word reading vocabulary knowledge tasks continued to be below average and her reading comprehension on the YARC-P weak (see Table 5). At post-intervention testing, Danni's scores had crossed a clinical boundary into the low average range (Standard Score >85) on both standardised outcome measures. Minimal further gains were evident on the WRMT-III Word Comprehension task at follow-up 6 months later, and there was no progress on the CELF-4 Word Definitions. Further gains were evident on the YARC-P, however, with Danni's standard score now having moved further into the average range. This improvement is considered clinically significant as it represents a gain of $\geq 1SD$ from pre-intervention. She was also able to answer two of the four vocabulary dependent questions correctly at this time having not answered any correctly at previous test times.

Table 3

Oral and Reading Vocabulary, and Reading Comprehension Outcome Measures

Measure	Pre	Post	Follow-Up
WRMT Word Comp ^a	85	90	92
CELF-4 Definitions ^b	7		6
YARC Comp ^a	76	86	95

Note. a = Standard Score; b = Scaled Score

Discussion

This single case study sought to explore whether a pilot of a novel vocabulary intervention, focused on active exploration of the meaning and semantic organisation of words, was effective in improving word knowledge in a poor comprehender. Consistent with the profile of poor comprehenders, Danni did not have difficulty with the phonological subtasks on the WKP at any time point, reflecting a strength in encoding and laying down phonological representations. As expected, based on her results on the background assessment, her knowledge was much weaker on the semantic subtasks on the WKP prior to the intervention (Time1). The finding of significant improvements on these semantic subtasks post-intervention (Time2) for treated words, along with significant gains in word knowledge, provides further support, albeit small, for previous research showing intervention can be effective in improving vocabulary on bespoke measures for children with reading difficulties (Clarke et al., 2010; Elleman et al., 2009; Wright & Cervetti, 2017). Additionally, this finding supports that improvement can be made with a relatively small amount of instruction, as per Wright and Cervetti (2017). Further, this case study provides evidence that these gains can be maintained over time (Time3), although the gains on the Use in Sentences and Word Meaning subtasks were no longer significant at Time3. Another feature of this study is that it provides evidence that improvement can transfer to untreated words. Clarke et al. (2010) found a small but significant improvement, compared with controls, on untreated words for their oral language group post-intervention, while in this case study such gains were not evident across subtasks and word knowledge ratings until 6 months after intervention at Time3 follow-up. This delayed effect suggests that Danni may have needed time to apply word learning strategies to deepen her knowledge of words that were not directly taught.

In contrast with the significant gains on the bespoke vocabulary measure, improvement on the standardised vocabulary measures was more limited. Danni's score on the standardised reading-input outcome measure (WRMT-III Word Comprehension) crossed a clinical boundary into the average range after intervention but had made minimal improvement 6 months later at follow-up, and there was no improvement on the CELF-4 Word Definitions task. While the meta-analysis by Elleman et al. (2009) found evidence of improvement on standardised vocabulary measures following intervention, Clarke et al. (2010) only identified a significant improvement for the oral language group after intervention, but this gain was not significantly different from pre-intervention levels at follow-up 11 months later. These results support the recommendation of the NRP (2000), that

non-standardised assessment instruments matched to instruction are needed for efficacy of instruction to be measured.

The second aim of this case study was to investigate generalisation of any therapy gains to reading comprehension. Consistent with Clarke et al. (2010), but contrary to most other studies investigating the impact of vocabulary instruction on standardised reading comprehension measures, Danni had crossed a clinical boundary into the average range on the reading comprehension outcome measure (YARC-P) following intervention. Her reading comprehension then improved further at follow-up, and this gain from prior to intervention was considered clinically significant. Analysis of the question types on the YARC-P also revealed that she was able to answer vocabulary dependent questions at follow-up, which she had not been able to do previously.

Limitations and Future Directions

Given the exploratory nature of this novel intervention with a single participant, further research is required to replicate the methods and examine outcomes with a larger sample to overcome the subjectivity of the word selection and word knowledge ratings from a single participant. Additionally, the study would be strengthened by (1) presenting the words in the context of the passage rather than only a sentence, (2) ensuring home tasks are completed consistently between sessions and measuring time spent on home practice, and (3) readministering the comprehension passages from KEY into inference/evaluation, despite the questions on these tasks being designed to test inference-making rather than vocabulary knowledge. Finally, further rigour would be introduced through blinded pre-post assessment, a feature that could not be addressed in the current study.

Clinical Implications

Implications for practice that arise from this case study include the need for SLPs to be aware that, as previously identified (Elleman et al., 2009; NRP: NICHD, 2000), bespoke measures are likely to be required to measure change following vocabulary intervention. Standardised measures can be useful in identifying children with poor vocabulary and for measuring growth in vocabulary over time but, typically, are not sensitive enough to measure proximal outcomes resulting from intervention. Most research exploring the effect of vocabulary intervention on reading comprehension has found that gains are made on custom measures containing target words, but this improvement does not transfer to standardised measures. The results for poor comprehenders from Clarke et al. (2010) and this case study show a greater level of support for the benefits of vocabulary intervention for children with

weak reading comprehension (Duff, 2019; Elleman at al., 2009). SLPs need to remain aware, however, that while vocabulary is important, reading comprehension is complex, such that intervention is likely to need to go beyond improving depth of vocabulary to ensure lasting improvements in reading comprehension. The procedure developed for this intervention provides a framework that SLPs could adapt for use with a wider range of children. While the words used in the case study were specific to Danni, vocabulary and texts could be tailored to different learning situations.²

² The programme template will be made available during 2022 via the LaLYP website: <https://www.languageandliteracyinyoungpeople.com>

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