Dynamic Indicators of Basic Early Literacy Skills

Using DIBELS in an Australian primary school context

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What it screens for

Early readers:
difficulties in

- Phonemic awareness
- Decoding
- Word recognition
- Reading speed
- RAN

Older readers:
difficulties in

- Reading speed & accuracy
- Reading comprehension

Benchmark and Progress Monitoring (we are just looking at Benchmark assessment today)

DIBELS in context at Carlton PS

DIBELS in context at Carlton PS

Teaching	Intervention	Assessment
2019 Balanced literacy	**2019** LLI	**2019** FPBAS
2020 Balanced literacy	**2020** Phonics, phonemic awareness & LLI	**2020** FPBAS, FELA, YARC, motif tests, referrals for LD Ax
2021 Structured literacy Prep Balanced literacy 1-6	**2021** Sounds Write & LLI	**2021** Pilot - DIBELS, FELA, YARC, FPBAS, phonic checks
2022 Structured literacy P-2 Balanced literacy 3-6 with phonics class	**2022** Sounds Write	**2022** DIBELS, FELA, phonic checks

Pros

- quick
- evidence based
- standardised
- informative
- screener
- not linked to teaching syllabus

Cons

- U.S. norms
- U.S. content
- screener
- not linked to teaching syllabus
- capacity for cheating on Maze

Norming studies

Table 1.1 Number of Students by Grade

Grade	Sample			
	A	B	C	D
K	685	678	213	429
1	782	694	195	369
2	725	853	--	221
3	783	710	--	256
4	408	683	--	--
5	388	645	--	--
6	276	422	--	--
7	216	314	--	--
8	190	260	--	--
Total	4453	5259	408	1275

Note. A = 2017-2018 CTL norming study. B = 2018-2019 CTL norming study. C = 2018-2019 CTL dyslexia subsample. D = 2018-2019 Amplify study.

How did the normative sample reflect Carlton PS?

Characteristic Category	Sample							
	A		B		C		D	
	n	%	*n*	%	*n*	%	*n*	%
Free & reduced-price meals eligible	2557	57.4	2557	57.4	282	47.6	628	49.3
English learner designated	279	6.3	381	7.3	16	2.7	14	1.1

University of Oregon (2018-2020). 8th Edition of Dynamic Indicators of Basic Early Literacy Skills (DIBELS®): Technical Manual. Eugene, OR: University of Oregon. Available: https://dibels.uoregon.edu

Subtest organisation

Maze

Oral Reading Fluency (ORF)

Word Reading Fluency (WRF)

Nonsense Word Fluency (NWF)

Phoneme Segmentation Fluency (PSF)
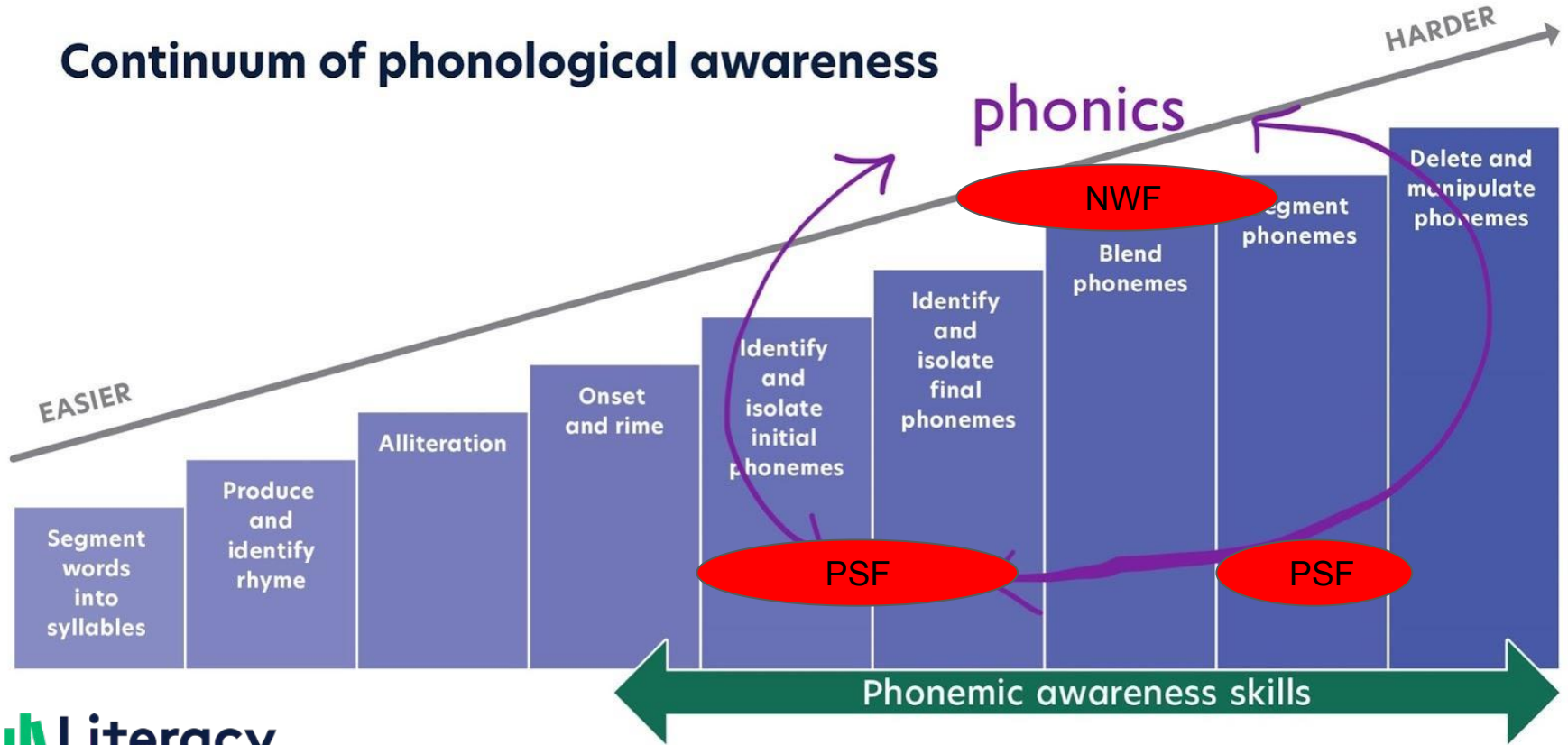
Letter Naming Fluency (LNF)

Beg	Mid	End	Beg	Mid	End	Beg	Mid	End	Beg	Mid	End	Beg	Mid	End	Beg	Mid	End	Beg	Mid	End	Beg	Mid	End	Beg	Mid	End
Kindergarten			First Grade			Second Grade			Third Grade			Fourth Grade			Fifth Grade			Sixth Grade			Seventh Grade			Eighth Grade		

Testing follows developmental progression
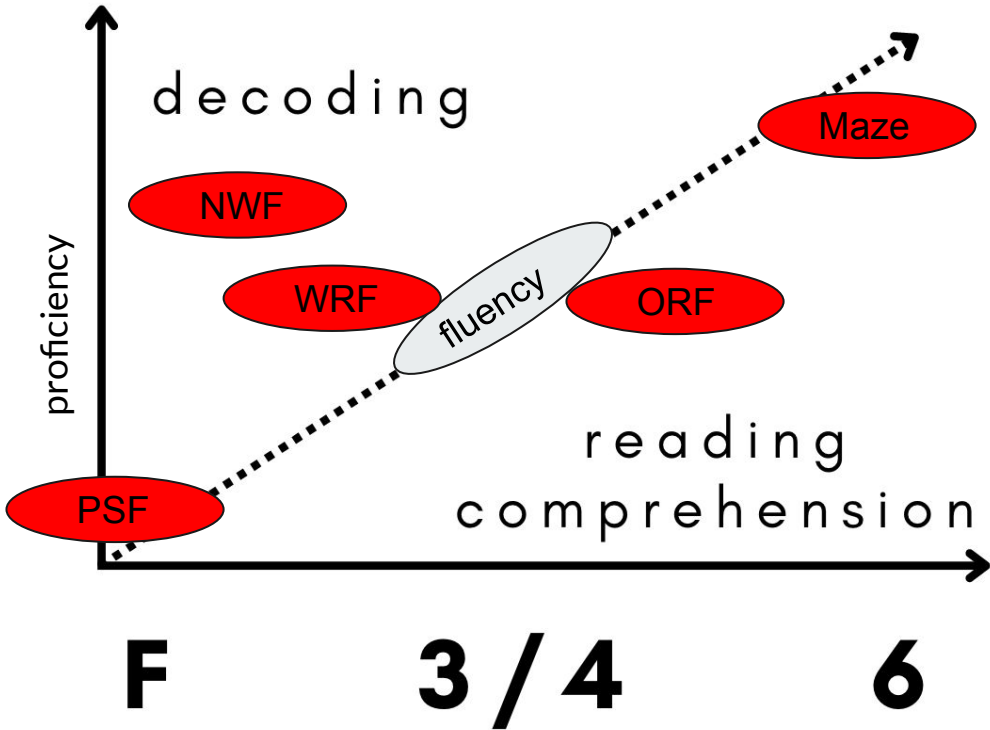
Continuum of phonological awareness

phonics

HARDER

EASIER

Segment words into syllables

Produce and identify rhyme

Alliteration

Onset and rime

Identify and isolate initial phonemes

Identify and isolate final phonemes

Blend phonemes

Segment phonemes

Delete and manipulate phonemes

NWF

PSF

PSF

Phonemic awareness skills

Literacy Hub

Scoring

Grade level

Kindergarten			First grade			Second grade			Third grade		
B	M	E	B	M	E	B	M	E	B	M	E
Letter Naming Fluency (LNF)											
25+	**37+**	**42+**	**42+**	**57+**	**59+**						
24	36	41	41	56	58						
16	31	35	32	51	53						
15	30	34	31	50	52						
0	0	0	0	0	0						
Phonemic Segmentation Fluency (PSF)											
15+	43+	53+	47+	57+	61+						
14	42	52	46	56	60						
5	**29**	**44**	**31**	**43**	**45**						
4	28	43	30	42	44						
1	23	37	19	34	37						
0	22	36	18	33	36						
	0	0	0	0	0						
Nonsense Word Fluency (NWF) – Correct Letter Sounds (CLS)											
20+	36+	49+	47+	78+	87+	86+	103+	117+	121+	138+	141+
19	35	48	46	77	86	85	102	116	120	137	140
9	**25**	**31**	**30**	**52**	**55**	**50**	**68**	**76**	**76**	**94**	**105**
8	24	30	29	51	54	49	67	75	75	93	104
4	16	24	25	41	45	41	54	54	52	78	80
3	15	23	24	40	44	40	53	53	51	77	79
0	0	0	0	0	0	0	0	0	0	0	0

Beginning (of year) Middle End

Subtest name

Benchmark

Score bands

Blue goal = Core support; Negligible risk
(nearly all students in this range score at or above the 40th percentile rank on criterion measure)

Green range = Core support; Minimal risk
(about 80% of students who score at or above the 40th percentile rank on criterion measure fall in this range or above)

Yellow range = Strategic support; Some risk
(about 80% of students who score below the 40th percentile on criterion measure fall in this range or below)
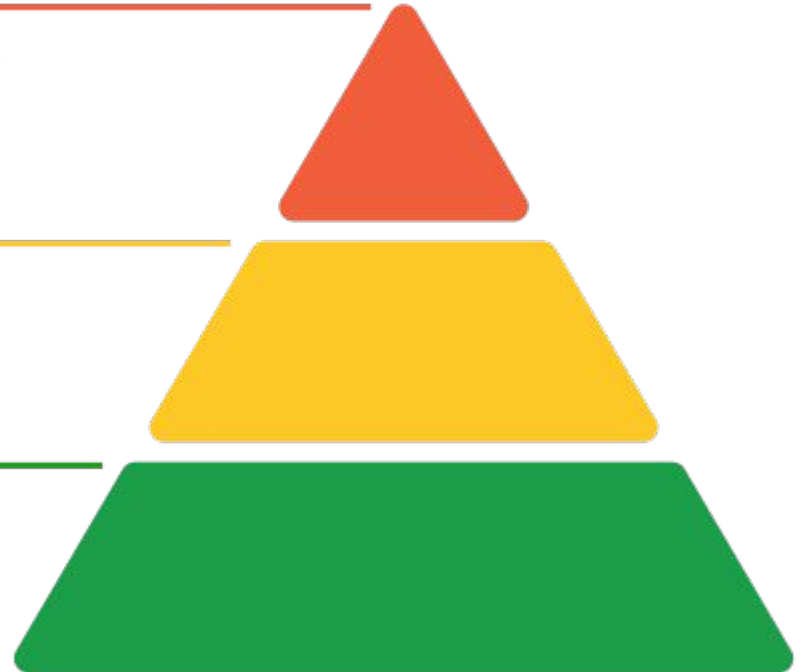
Red range = Intensive support; At risk
(about 80% of students who score below the 20th percentile on criterion measure fall in this range)

Score bands link to RTI
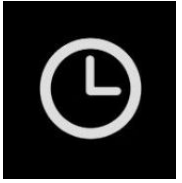

Tier III — Individualized intensive interventions

Tier II — Targeted small group interventions for at-risk students

Tier I — Whole class research-based core instruction
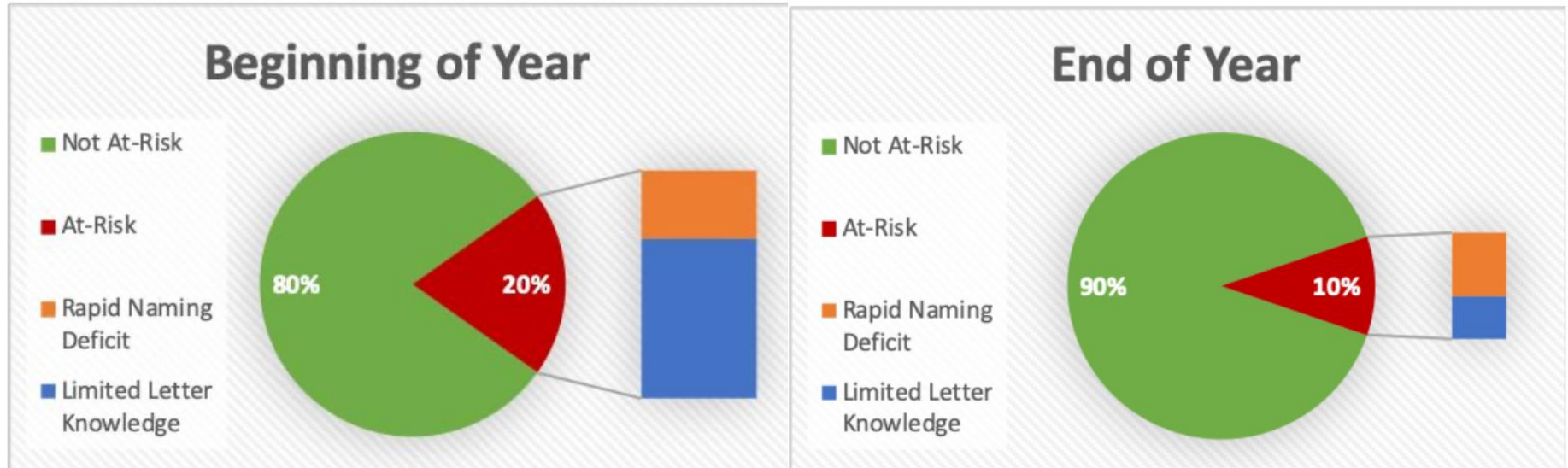
Letter naming fluency (LNF) Prep - 1

o	r	u	v	C	M	O	L	h	k
E	U	e	f	A	B	c	I	D	i
y	N	F	s	g	P	G	d	S	x

Dyslexia screening

Figure 1. Illustration of changing deficits underlying risk on LNF

Ives, Biancarosa, Fein & Kennedy (2019). Dyslexia Screening and DIBELS 8th Edition.

Dyslexia screening

Table 1. DIBELS 8 Subtest Alignment with Dyslexia Screening Areas

	Rapid Naming Ability	Phonological Awareness	Alphabetic Principle	Word Reading
LNF	+			
PSF		+		
NWF			+	
WRF				+
ORF				+

Ives, Biancarosa, Fein & Kennedy (2019). Dyslexia Screening and DIBELS 8th Edition.

Dyslexia - diagnostic criteria

Specific Learning Disorder

Diagnostic Criteria

A. Difficulties learning and using academic skills, as indicated by the presence of at least one of the following symptoms that have persisted for at least 6 months, despite the provision of interventions that target those difficulties:

1. Inaccurate or slow and effortful word reading (e.g., reads single words aloud incorrectly or slowly and hesitantly, frequently guesses words, has difficulty sounding out words).

2. Difficulty understanding the meaning of what is read (e.g., may read text accurately but not understand the sequence, relationships, inferences, or deeper meanings of what is read).

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). https://doi.org/10.1176/appi.books.9780890425596

LNF expectations

Kindergarten			First grade		
B	M	E	B	M	E
Letter Naming Fluency (LNF)					
25+	**37+**	**42+**	**42+**	**57+**	**59+**
24	36	41	41	56	58
16	31	35	32	51	53
15	30	34	31	50	52
0	0	0	0	0	0

DIBELS® 8th Edition Benchmark Goals Updated:
July 2020

Phonemic segmentation fluency (PSF) Prep - 1

for	here	who
/f/ /or/	/h/ /ear/	/h/ /oo/
		/6

on	wave	both
/o/ /n/	/w/ /A/ /v/	/b/ /O/ /th/
		/8

ball	food	then
/b/ /o/ /l/	/f/ /oo/ /d/	/TH/ /e/ /n/
		/9

tell	bit	ask
/t/ /e/ /l/	/b/ /i/ /t/	/a/ /s/ /k/
		/9

PSF expectations - Prep/1

Phonemic Segmentation Fluency (PSF)					
15+	43+	53+	47+	57+	61+
14	42	52	46	56	60
5	**29**	**44**	**31**	**43**	**45**
4	28	43	30	42	44
1	23	37	19	34	37
0	22	36	18	33	36
	0	0	0	0	0
B	M	E	B	M	E
	Prep			Grade 1	

DIBELS® 8th Edition Benchmark Goals Updated:
July 2020
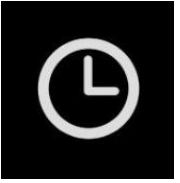
Nonsense word fluency (NWF) Prep - 3

1 min

sep	rop	lan	tup	nen
het	dem	som	tig	nup
tum	nep	nop	lun	hon

Generates two scores
CLS - Correct Letter Sounds
WRC - Words Recoded Correctly

NWF scoring sheet

					CLS	WRC
sep /s//e//p/	rop /r//o//p/	lan /l//a//n/	tup /t//u//p/	nen /n//e//n/	/15	/5
het /h//e//t/	dem /d//e//m/	som /s//o//m/	tig /t//i//g/	nup /n//u//p/	/15	/5

NWF expectations - Grade 1

F) – Correct Letter Sounds (CLS)		
47+	78+	87+
46	77	86
30	**52**	**55**
29	51	54
25	41	45
24	40	44
0	0	0

F) – Words Recoded Correctly (W		
16+	26+	28+
15	25	27
5	**14**	**15**
4	13	14
1	10	11
0	9	10
	0	0
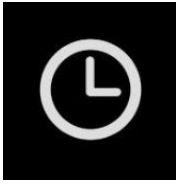
by	and	but	has	are
a	in	of	there	have
it	no	more	we	is

WRF expectations - Grade 1

20+	33+	50+
19	32	49
12	**17**	**25**
11	16	24
8	14	17
7	13	16
0	0	0

Oral reading fluency (ORF) Gr 1 - 6
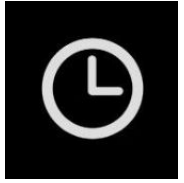
Church Pears

The church on our street has a big parking lot. On a patch of grass at one end is a pear tree. The church lot and its tree are our playground.

Most days there are no cars in the lot. On those days, my brother and I ride our bikes around and around. But our

Generates two scores
WCPM - Words Correct Per Minute
ACC - Accuracy Percentage

Oral reading fluency Australian norms

Average Rates of Reading in the Primary Years

By end Year 1	60 words/min
By end Year 2	90/100 words/min
In Years 3–6	100–120 words/min (with < 3 errors with material getting progressively harder)

The rate required for basic comprehension is around 90–100 words per minute, a rate usually achieved around the end of year 2.

Konza (2011). Research Into Practice: Fluency. SA-DECS.

ORF - DIBELS norms Grades 1-3

Term 4 Grade 2

Oral Reading Fluency (ORF) – Words Correct

35+	57+	76+	85+	117+	128+	105+	141+	136+
34	56	75	84	116	127	104	140	135
10	**21**	**39**	**49**	**78**	**94**	**73**	**105**	**114**
9	20	38	48	77	93	72	104	113
5	10	26	29	59	77	55	85	96
4	9	25	28	58	76	54	84	95
0	0	0	0	0	0	0	0	0

Oral Reading Fluency (ORF) - Accuracy

67+	**87+**	**91+**	**92+**	**96+**	**96+**	**96+**	**96+**	**96+**
66	86	90	91	95	95	95	95	95
41	54	85	84	91	91	91	91	91
40	53	84	83	90	90	90	90	90
0	0	0	0	0	0	0	0	0

A note on accuracy

DIBELS Accuracy bands for Grade 6

96+	96+	96+
95	95	95
91	91	91
90	90	90
0	0	0

More like what we want

97+
96
95
94
0

"We will win the game [if / so / to] you score a lot of points [in / for / save]

us," said Cindy.

"If we work [backwards / specially / together] as a team, we will win [as / but / the] game,"

said Anne.

Maze practice passage

Practice Passage

Tom goes to a school far from his house. Every morning, he

takes a school [bus / pen / work] to go to school. In the [afternoon / library / morning], he also

takes a bus home.

Maze scoring

The adjusted score is the total correct responses less half the total of incorrect responses.

$$Maze = Correct - \frac{Incorrect}{2}$$

E.g., A performance of 9 correct choices and 3 incorrect choices results in a Maze score of 7.5.

Interpretation

Be holistic in your considerations

Compare results to formative assessment

Compare results to performance on other tests, e.g., NAPLAN

Inconsistencies

Inter-rater reliability

Being timed - anxious students

Being timed - competitive students

Reading aloud can be unnatural for older students

Try to be consistent in your accommodations

Maze - group setting

Distractions
Group language

Interpretation - Grade 3 data

De-identified data table of student results

DIBELS composite scores