



Research & Development Impact Report No.9

How can we effectively teach new valuable vocabulary so that pupils use more of it correctly in written work?

"I prefer the one which has a picture because it tells us what the words are about,"

"I prefer the ones with less words because it is less words to learn,"

"It is easier to describe what the word means with the pictures to help,"

"I like the blank boxes as I could use it for words that I wanted to use that weren't on there. I drew my own image to remember the word."

Year 4 Students

Who might find this research useful?

- Teachers, English coordinators, curriculum leads and SLT
- Schools looking to develop and improve the vocabulary of the children in their school

Summer 1
Week 2



Our Valuable Vocab!



	1	2	3	4	5	6
1	mountain 	villagers 	current 	turn 	drift 	trickle
2	rainforest 	tribe 	calmly 	meander 	flow 	tumble
3	city 	riverboat 	gracefully 	winding 	twisting 	swelling
4						

Can you add your own and draw an image to remember them?

For further information please contact:

Hester Enthoven

HEnthoven@harringotnhill.hackney.sch.uk

Hannah West

HWest@harringotnhill.hackney.sch.uk

Research & Development Impact Report

How can we effectively teach new valuable vocabulary so that pupils use more of it correctly in written work?

Does the percentage of valuable vocabulary used accurately increase when 'Goldilocks' words are selected, visual images are used and less words are introduced?

Project Participants	Year 4 class teachers	Phase(s)	Primary KS2
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School context relevant to this research:

- Harrington Hill Primary School is a two-form entry school with Nursery provision, in the London Borough of Hackney.

Current Context

- The school 341 pupils on roll
- 60% of children have English as an additional language which is significantly above national average (highest quintile)
- Overall, 48% of pupils are eligible for the pupil premium grant
- Attendance is 96%, which in line with the national average
- The deprivation indicator places the school in the highest quintile nationally
- 59 children (17%) are on our whole school additional needs register, 12 of these 59 children (3.5%) have an EHCP. 2.9% is national average for EHCP.

Harrington Hill Primary School was graded as good by Ofsted in February 2018

Key actions:

- Leaders and those responsible for governance should ensure that new topic programmes are taught in depth and meet the school's stated aim that English skills should be a feature of learning in each topic

End of KS1 and KS2 data for 2017 shows that although the school is above the national average in writing, both at expected and at greater depth, attainment in writing in Years 3, 4 and 5 is considerably lower.

All pupils will benefit from this research but data analysis will concentrate on the 167 children in Years 3-5.

Starting point(s)/ Baseline evidence:

- Since the valuable vocabulary has been introduced in school, teachers feel that it has not had the desired impact on children's written work. We are interested in unpicking this to find out why
- Teachers feel creating the vocabulary grids, which is time consuming, isn't making the impact it should
- Teachers are concerned that although the children enjoy the valuable vocabulary activities, for the majority, this does not transfer into increased correct use in their written work
- The valuable vocabulary is currently pitched too high for many learners to access
- Vocabulary is currently selected and taught in an inconsistent way throughout the school
- In Baseline VV1 Sample 25% is used correctly, in Baseline VV2 Sample 10% is used correctly. Can this be increased?

Key R&D question(s)

How can we effectively teach new valuable vocabulary so that pupils use more of it correctly in written work?

Does the percentage of valuable vocabulary used accurately increase when 'Goldilocks' words are selected, visual images are used and less words are introduced?

Intended successful outcomes

Success criteria/ Impact measures

<ul style="list-style-type: none"> • A greater percentage of the valuable to be used accurately in written work by the pupils • Overall aim – to identify successful teaching strategies that increase the proportion of valuable vocabulary learnt and used in each topic 	<ul style="list-style-type: none"> • By the end of the project the majority of pupils would learn a higher proportion of the valuable vocabulary and use them successfully in their written work • The research evidence will lead us to identify key teaching strategies and resources, which can be used by all teaching staff to improve written outcomes
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Summary plan of action

- Reasons for this study will be shared with the teachers involved
- Research will be conducted in English lessons across Y4
- A quantitative chart will be used in moderation of the books (pre and post changes to valuable vocab approach)
- Data will be collected, and a specific line of inquiry identified
- Alongside the Y4 teachers, we will discuss and identify ‘Goldilocks’ words for their upcoming topic
- At the end of the research period, findings will be shared with participants
- A reflection meeting will be held with Y4 teachers at the end of the study to evaluate the impact of the study

Timescale

5 months

- Research leads met in early spring and analysed the baseline data was analysed from Autumn term. Research leads then met towards the end of the summer term and analysed the outcome data from the summer term
- Research leads met with the HTSA National Leader of Education three times throughout the project and collaborated online in between

Initial resource allocation (human, material and financial)

- Lead researchers to moderate books so need time out of class to do so
- Meetings with the Y4 teachers
- Planning time for lead researchers alongside year 4 teachers

Other points to note

The term Goldilocks words is from the Word Aware programme, which staff were trained in this academic year. Please see below definition:

“Goldilocks words – not too easy, not too difficult but just right! These are words which are topic specific but are very important for understanding the topic. In judging whether a word was a Goldilocks word or not, we were encouraged to think about whether the children would be likely to come across it again in reading or oral language – if not, it probably isn’t a Goldilocks word. Teachers are encouraged to pick Goldilocks words to specifically teach as a part of each lesson.” Word Aware website

Progress and Impact Review [17.07.2019]

Visible Actions completed

- Completed the baseline data capture in two classes over two units of work
- After the baseline, the research leads reviewed the content of the grids with the class teacher
- Together, for the following units, the number of words used were reduced, visual support was added in for each word and the chosen words were more applicable in the children's everyday lives (Goldilocks)
- Completed the outcomes data capture in the same two classes over two units of work
- The research leads then analysed the data

Outcome analysis

Pupils' ability to correctly use new 'valuable vocabulary' in written work doubled when the vocabulary was visually supported and focused on a smaller range of 'Goldilocks' words.

As a result of:

1. vocabulary that was specifically selected, ensuring it met the curriculum objectives, with a focus on root words,
2. reducing the number of words per topic,
3. and supporting the vocabulary visually,

on average the children were able to use twice as many of the words correctly in their subsequent written work (18% to 40%).

Without visual support alongside the words pupils made slight improvements however only half as much as when visual cues were used.

In Summer 2, which was not supported visually, the increase was approximately half of that when the vocabulary was visually supported (18% to 30%) but it was still an increase of approximately 50%. This led us to the conclusion that when vocabulary is introduced, it should be support visually.

Despite this research project being based on a small sample of children, the intervention had proportionately larger impact on the 4 WT children who were chosen. Their improvement was much larger as a percentage of their lower starting points, less impact was seen for the GD children.

Factor	Number of pupils	Average correctly used Autumn term	Average correctly used Summer 1 (visual support)	Average increase	proportionate increase compared to start score
male	5	18%	37%	19%	103%
female	7	17%	43%	25%	145%
WT	4	13%	42%	29%	233%
AE	4	18%	32%	14%	77%
GD	4	23%	47%	25%	109%
EAL	3	15%	35%	20%	130%
Non-EAL	9	19%	42%	23%	127%
PPG	2	11%	44%	33%	300%
Non-PPG	10	19%	39%	20%	107%
FSM	2	11%	44%	33%	300%
Non-FSM	10	19%	39%	20%	107%
SEND	3	16%	31%	16%	100%
Non-SEND	9	18%	43%	25%	135%
		17%	40%	23%	152%

If we compare it to Summer 2, which was not visually supported, the gains are smaller overall (about half)

Impact of removing visual cues to key vocabulary

Factor	Number of pupils	Average correctly used Autumn term	Average correctly used Summer 2 (No visual support)	Average increase	proportionate increase compared to start score
male	5	18%	23%	5%	29%
female	7	17%	35%	18%	101%
WT	4	13%	23%	10%	83%
AE	4	18%	23%	5%	27%
GD	4	23%	45%	22%	98%
EAL	3	15%	26%	11%	73%
Non-EAL	9	19%	31%	13%	70%
PPG	2	11%	17%	6%	50%
Non-PPG	10	19%	33%	14%	73%
FSM	2	11%	17%	6%	50%
Non-FSM	10	19%	33%	14%	73%
SEND	3	16%	13%	-3%	-21%
Non-SEND	9	18%	36%	18%	97%
		17%	27%	11%	62%

Interestingly, although students with SEND had among the smaller sizes of improvement with visual cues, without the cues they didn't improve at all. When looking at this further in context, predominately the SEND children (2/3) chosen were already working at age expected so were more readily embedding their own vocabulary.

Evaluation

Based on the results of the Vocabulary focussed research project, which took place over a 5 month period looking at 4 samples of vocabulary grids, we have found that adaptations to strategies and resources for teaching vocabulary has improved their correct use and frequency of words that effectively aid their writing. In a reflection group, where the year 4 children looked over their past topic vocab grids, they all favoured the grids, which were aided with imagery, had less words that were Goldilocks words and had space for them to include their own learnt vocabulary. This matched our research findings from the data analysed (see appendix).

Other outcomes and impact**Short Term**

For September 2019, these recommendations will be passed on to the English Lead and Head Teacher to consider adopting a more consistent approach of teaching vocabulary by:

- revisiting training on Goldilocks words, particularly for new staff,
- ensuring the use of visual support,
- as a school, consider creating banks of Goldilocks words which will be available for teachers,
- reducing the number of words currently on the vocab grids,
- including blank boxes for children's own vocabulary,
- ensure consistency of taught vocab games, perhaps additional staff training.

What next?**Long Term**

Points to consider:

- does using a systematic teaching approach using the Word Aware teaching strategies and games further improve the range of vocabulary used?
- will pre-writing models earlier in the planning cycle help to identify the most useful Goldilocks words for that unit?
- could pre-teaching the words have an impact?
- will improved outcomes in writing be seen?
- could these changes narrow the attainment gap of vulnerable groups, particularly EAL children?

Review of resource allocation (human, material and financial)

Lead researchers were given the appropriate amount of time out of class to ensure the research could be conducted appropriately. Cover was used from within the school so there was not a significant impact on finances.

Appendix

1. Implementation plan
2. Vocabulary grids
3. Data capture

Appendix 2

Baseline Valuable Vocab Grid 1



Our Valuable Vocab!



	1	2	3	4	5	6
1	Egypt	tomb	mummification	River Nile	afterlife	sphinx
2	Egyptians	coffin	canopic jars	papyrus	Book of the dead	amulet
3	pharaoh	mummy	hieroglyphics	pyramids	sarcophagus	scarabs
4	ancient	towering	excitable	bravely	courageously	fearsome
5	magnificent	soaring	enthusiastic	excitedly	cautiously	terrifying
6	ascended	enormous	confidently	eagerly	desperately	formidable



Baseline Valuable Vocab Grid 2



Our Valuable Vocab!



	1	2	3	4	5	6
1	Pacific	Atlantic	vegetation	habitat	characteristics	circulate
2	Arctic	Antarctic	marine life	environment	vertebrate	organisms
3	Indian	continent	ecosystem	classify	invertebrate	climate
4	barnacles	coastal	dejectedly	battered	adoringly	however
5	crystal clear	vivid blue	neglected	leaky	lovingly	although
6	shimmering	choppy	disheartened	dilapidated	dilemma	even though

















Outcomes Valuable Vocab Grid 1

Summer 1
Week 2



Our Valuable Vocab!



	1	2	3	4	5	6
1	mountain 	villagers 	current 	turn 	drift 	trickle 
2	rainforest 	tribe 	calmly 	meander 	flow 	tumble 
3	city 	riverboat 	gracefully 	winding 	twisting 	swelling 
4						

Can you add your own and draw an image to remember them?

Outcomes Valuable Vocab Grid 2

Valuable Vocab!

	1	2	3	4	5	6
1	robot	lifeless	inventor	slumped	mysterious	magical
2	metallic	powerless	ancient	exhausted	ominous	enchanted
3	shiny	limp	elderly	frustrated	eerie	extraordinary
4	mechanical	senseless	lonely	disheartened	isolated	mystical