



50,000 Assessments:

An initial review of Reception year Language Link
data collected Autumn 2020

Summary

Every year in the autumn term, schools using the Infant Language Link support package assess about 50,000 Reception children for their understanding of the language used in the classroom. With many schools undertaking universal screening with our assessments and the numbers captured being about 10% of the Reception population, Speech Link Multimedia Ltd is well placed to look at overall trends.

At the start of the autumn 2020 term, we reported headline figures of a 20 to 25% increase in the number of pupils' results in our Red band. (The Red band approximates to scores less than the 6th percentile, see precise definitions below). Now we are able to put together this first look at our data, an in-depth analysis will follow later.

Trends since 2017 are shown, which highlight the increased level of need recorded in the 2020 autumn term. In *Discussion 1 All UK Data*, proportions of pupils in each of the Infant Language Link results bands (from all schools attempting universal screening) are given for each month and year. In *Discussion 2 Quintile Comparison* these are then broken down by quintile (combined decile) of the Index of Multiple Deprivation. This shows the considerable level of need recorded every year within the first two quintiles across the entire autumn term: by the end of term, within these quintiles, between one in four and one in three pupils on average still require support with their understanding of language. This is excluding pupils recorded as having English as an additional language (EAL).

It is worth noting that these results are from schools aware of the importance of language, engaged enough to perform universal screening and consequently likely to have some strategies in place to address shortcomings which would affect access to education.

Background

Infant Language Link Assessments

Infant Language Link contains two equated, standardised assessments of the understanding of language. The Reception Assessment designed for use as its name suggests in Reception (in England ages 48 to 71 months) and The Infant Assessment focused on years 1 and 2 (in England, ages 60 to 95 months).

Standardised in association with the University of Cambridge Psychometrics Centre, these assessments are based on Item Response Theory and, as mentioned above, are designed specifically to screen for problems understanding the language likely to be used in the classroom. The sensitivity of the assessments is therefore focused on the lower percentiles and peaks between the 6th and 16th. The standardisation is on a month by month basis, not the more usual six month age bands.

Each year approximately 70,000 Reception Language Link Assessments are completed, with about 50,000 of these during the Autumn term.

Presentation of Language Link Results

A percentile rank and standard score are reported along with specific areas of weakness, the pupil's result is placed in one of four bands which have recommendations associated with them. The bands are characterised as "Red", "Blue", "Borderline" and "Clear". The criteria for the bands are as follows:

Band	Criteria in terms of percentile score S	Recommendation for school action
"Red"	$p(S < 0.06) > 0.4$ i.e. the probability that the score is less than the 6 th percentile is greater than 0.4	Discuss the pupil with a speech and language therapist. In the meantime implement the classroom strategies, the recommended Infant Language Link small group interventions (based on standard speech and language therapy interventions) and one to one work included with the package
"Blue"	Not in "Red" AND $p(S < 0.16) > 0.5$ i.e. the probability that the	Implement the recommended Infant Language Link strategies and small

	score is less than the 16 th percentile is greater than 0.5. This is equivalent to using the 16 th percentile as the boundary	group interventions and monitor the pupil's progress
"Borderline"	Not in "Blue" AND $p(S < 0.16) > 0.3$ AND $(p(S < 0.16) > 0.5$ for any of the following language areas: 'concepts', 'verb tenses', 'instructions', 'negatives', 'questions')	Implement the Infant Language Link strategies, monitor progress and add to interventions if any concern.
"Clear"	Not in Borderline	Monitor and discuss if any concerns
Note on terminology we use the terms "levels" and "levels of need" interchangeably in this document when referring to the percentage of scores falling within the above Infant Language Link bands.		

Assessing in the Autumn Term

We recommend schools do not screen Reception pupils immediately on arrival at school, but that sufficient settling in time is allowed. However, many still do screen on arrival, possibly leading to some inflation of the numbers identified. As we have the data available, we have therefore looked at the levels recorded in the individual months of the autumn term across the last four years, with the exception that November and December have been combined.

Index of Multiple Deprivation (IMD), Deciles and Quintiles

For a full explanation of the Index of Multiple Deprivation and associated terms such as LSOA please see this document:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/835115/loD2019_Statistical_Release.pdf

We have combined deciles into quintiles to simplify data representation.

The Data

Criteria for Inclusion

In order to focus on SLCN prevalence, make sensible comparisons between years, months, expected levels and Index of Multiple Deprivation (IMD), the following criteria were applied:

1. Pupils flagged as having English as an Additional Language were excluded from the sample.

(It is recognised that supporting pupils who have English as an Additional Language brings significant additional planning and work for the class teacher. However, as having English as an Additional Language is not a speech, language and communication need, it was felt inappropriate to include these children in the data, despite the Language Link programmes being beneficial for these pupils.)

2. Only schools with 15 or more Reception assessments completed within the given target date range are included, e.g. September 2019. This is our gauge of whether schools are attempting universal screening.
3. Deprivation parameter weightings differ between the UK nations therefore, where IMD is considered, only schools in England have been included. Where all our UK schools' Reception data have been included, this is noted.

A First Look

UK wide percentages within the results zones. This is cumulative so the three categories are “Red”, “Red + Blue” and “Red + Blue + Borderline”. All pupils, excluding EAL, from all UK schools completing more than 15 assessments in the specified month:

Percentage in Red Zone all UK (pupils in sample)				
	2017	2018	2019	2020
September	6.8 (15,055)	6.9 (16,672)	7.7 (14,898)	9.6 (11,814)
October	5.9 (17,990)	6.4 (16,746)	6.3 (15,342)	7.5 (14,883)
Nov/Dec	6.4 (11,002)	6.9 (8,462)	6.9 (12,294)	7.4 (13,748)

Table 1

Percentage in Red+Blue Zones all UK (pupils in sample are as above)				
	2017	2018	2019	2020
September	18.4	18.6	19.0	23.2
October	17.1	17.4	17.5	19.6
Nov/Dec	16.5	17.4	17.1	18.0

Table 2

Percentage in Red+Blue+Borderline Zones all UK (pupils in sample are as above)				
	2017	2018	2019	2020
September	22.5	22.9	23.2	28.3
October	21.2	21.4	21.9	24.1
Nov/Dec	20.9	21.8	21.2	21.8

Year on Year changes in levels for each month

September			
	Red	Red + Blue	Red + Blue + Brdr
2017 to 2018	1.5%	1.1%	1.8%
2018 to 2019	11.6%	2.2%	1.3%
2019 to 2020	24.7%	22.1%	22.0%

Table 4

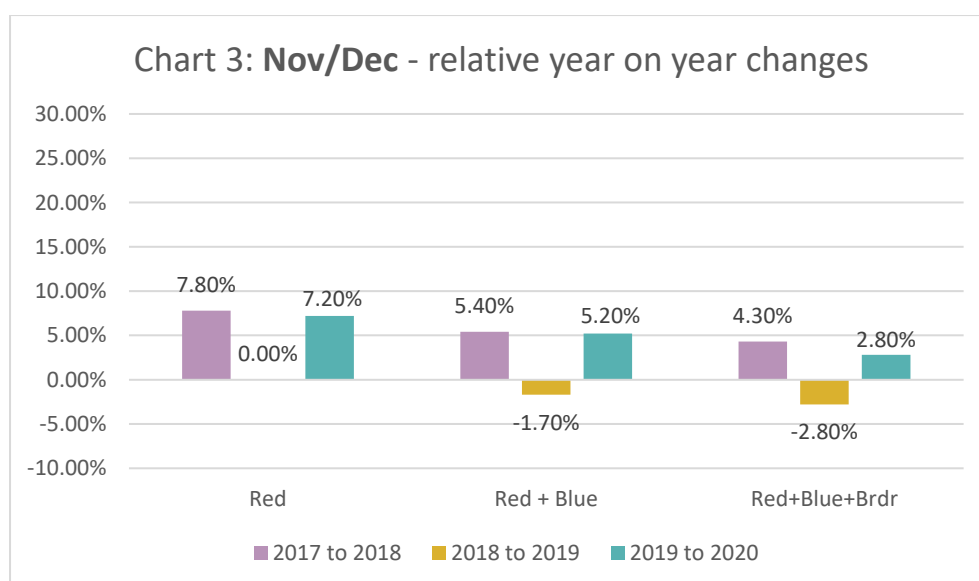
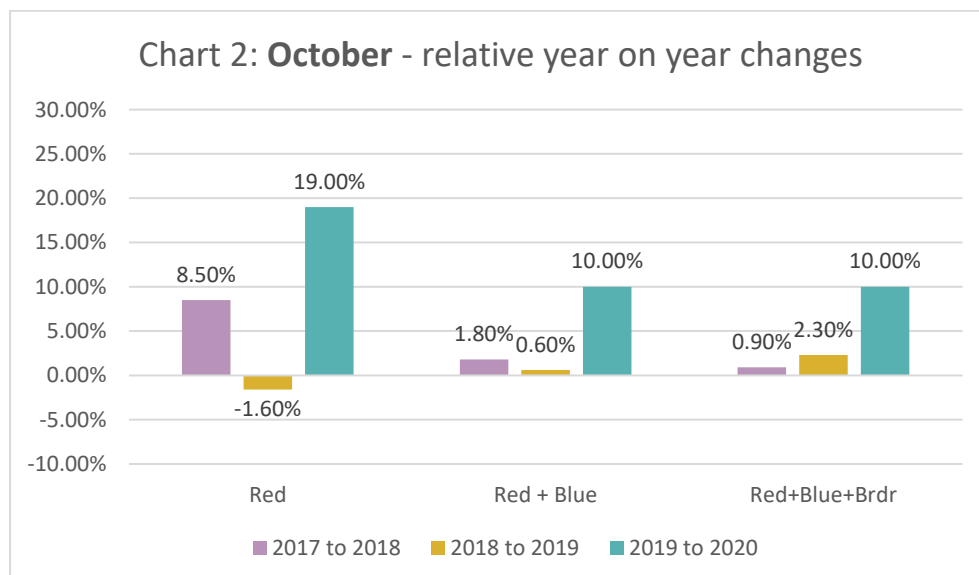
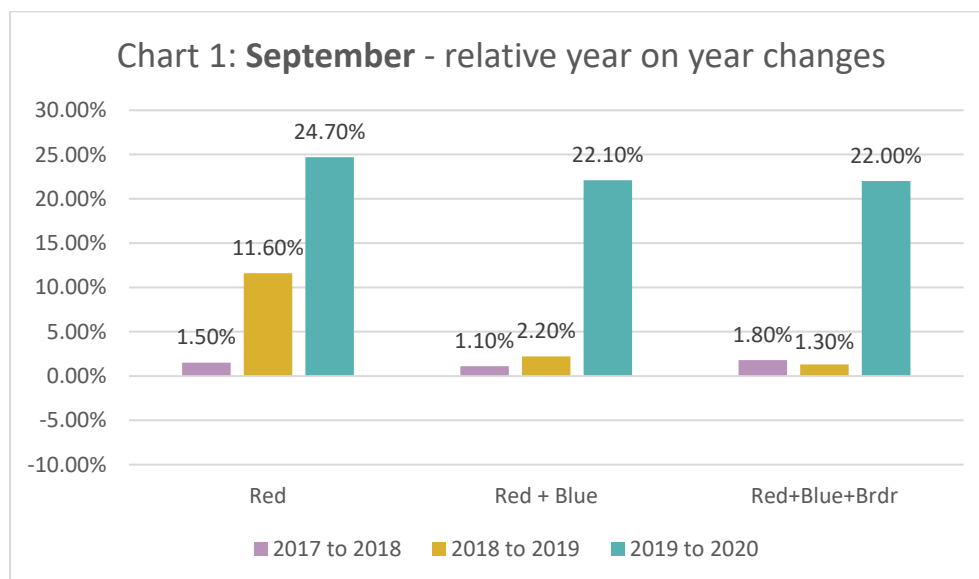
October			
	Red	Red + Blue	Red + Blue + Brdr
2017 to 2018	8.5%	1.8%	0.9%
2018 to 2019	-1.6%	0.6%	2.3%
2019 to 2020	19.0%	10.0%	10.0%

Table 5

Nov/Dec			
	Red	Red + Blue	Red + Blue + Brdr
2017 to 2018	7.8%	5.4%	4.3%
2018 to 2019	0.0%	-1.7%	-2.8%
2019 to 2020	7.2%	5.2%	2.8%

Table 6

As charts:



Month by Month changes in levels for each year

2017			
	Red	Red + Blue	Red + Blue + Brdr
September to October	-13.2%	-7.1%	-5.8
October to Nov/Dec	8.5%	-3.5%	-1.4%

Table 7

2018			
	Red	Red + Blue	Red + Blue + Brdr
September to October	-7.2%	-6.5%	-6.6
October to Nov/Dec	7.8%	0.0%	1.9%

Table 8

2019			
	Red	Red + Blue	Red + Blue + Brdr
September to October	-18.2%	-7.9%	-5.6
October to Nov/Dec	9.5%	-2.3%	-3.2%

Table 9

2020			
	Red	Red + Blue	Red + Blue + Brdr
September to October	-21.9%	-15.5%	-14.8
October to Nov/Dec	-1.3%	-8.2%	-9.5%

Table 10

As Charts

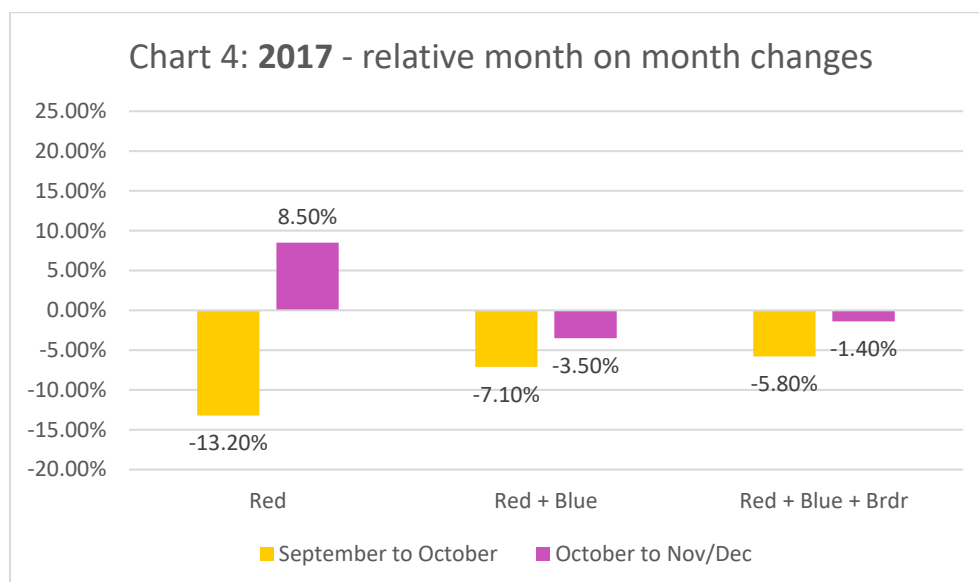


Chart 5: 2018 - relative month on month changes

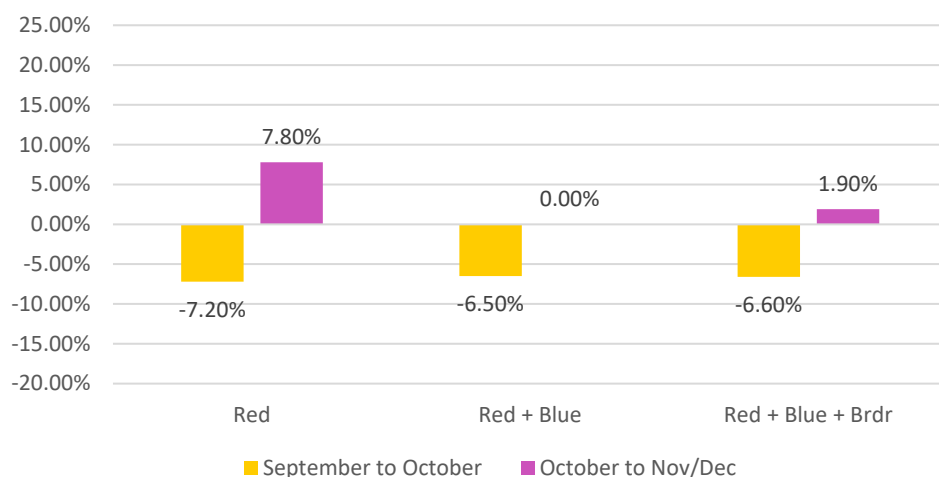


Chart 6: 2019 - relative month on month changes

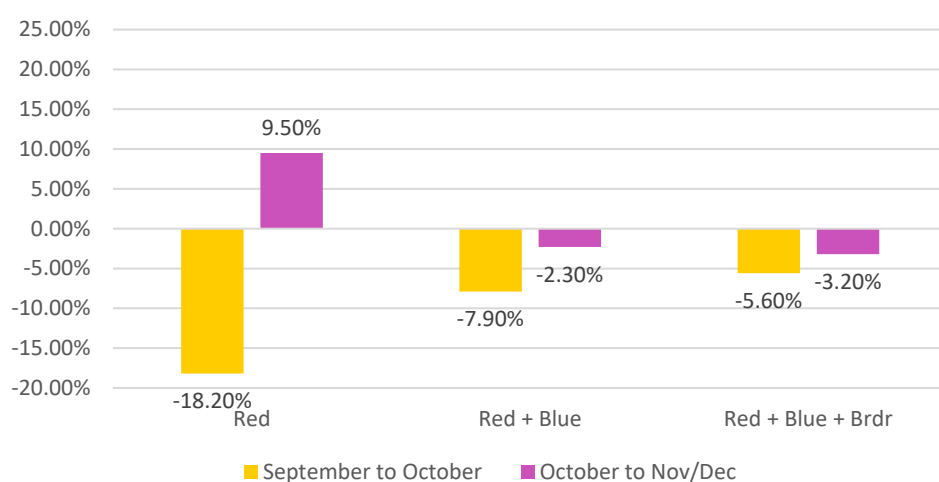
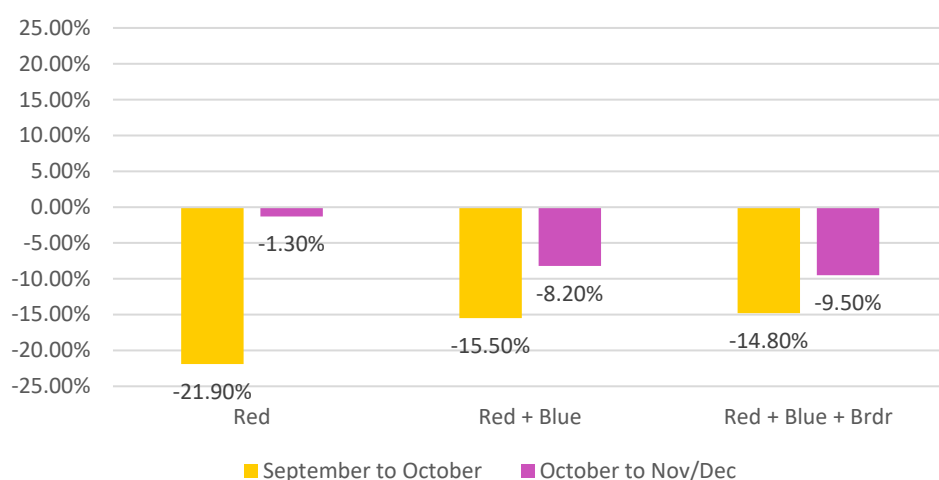


Chart 7: 2020 - relative month on month changes



Discussion 1: All UK Data

Looking at Chart 1, for the month of September the levels recorded in 2020 are clearly much greater than 2019 and the increase exceeds the 17-18 and 18-19 differences.

From Chart 2, this same description applies to October.

In Chart 3, we can see that the 19-20 increase is now of a similar level to that shown between 2017 and 2018. Nevertheless, with no recorded change between 2018 and 2019 these combined increases result in 15% more pupils in the Red zone in 2020 than in 2017.

For charts 4 to 6, the month on month changes do broadly reflect earlier comments about settling in times with the exception of the Oct to Nov/Dec change for the Red band in most years (see the caveats below).

Caveats:

Overall data are not equally weighted between numbers of schools in each IMD decile, there being fewer subscribers from the lower deciles, adjusting for this is likely to increase the levels of need shown above. We have examined the results for deciles combined into quintiles below.

These data are not derived from exactly the same set of schools each year and some of the schools may assess in different months each year. However, as we capture results from at least 10% of the UK Reception population, the trends shown are likely to reflect the true picture.

Schools with different IMD levels may test at different times in the term, we have not yet examined whether this is the case.

We are examining in more detail the reason for the fall in the proportion of those in the Red zone between September and October in previous years, followed by its subsequent increase between October and Nov/Dec. 2020 may be an exception to this pattern.

Note that, as the assessment is standardised by age in individual months, the overall pattern shown in charts 4 to 7 is not due to the mean age of the children shifting relative to a 6 month standardisation band.

Comparisons between IMD Quintiles

We obtained a value for the IMD decile corresponding to the postcode of each school and combined the deciles into quintiles to ensure we had at least 1000 pupils from schools in each quintile for each month of interest.

The following tables show the cumulative values in each Infant Language Link band for each month and year for each quintile.

Percentage in Red Zone England only, IMD quintiles (minimum of 1000 pupils in any given quintile and month)				
	Quintile	September	October	Nov/Dec
2017	1	10.2	8.8	11.1
	2	8.6	7.5	6.5
	3	7.5	5.9	6.6
	4	5.1	5.4	5.3
	5	3.6	3.5	4.0
2018	1	10.0	10.2	10.1
	2	8.3	7.8	9.6
	3	6.3	6.6	6.8
	4	6.1	5.0	5.6
	5	4.0	4.7	4.1
2019	1	11.8	9.5	13.0
	2	10.0	7.0	10.9
	3	5.7	5.9	5.6
	4	6.2	6.3	5.1
	5	5.1	3.9	5.3
2020	1	15.1	11.9	9.6
	2	12.4	9.0	10.6
	3	8.6	7.9	6.8
	4	6.4	6.7	5.1
	5	7.2	4.7	5.2

Table 11

Percentage in Red+Blue Zones England only, IMD quintiles (minimum of 1000 pupils in any given quintile and month)				
	Quintile	September	October	Nov/Dec
2017	1	24.5	23.0	25.5
	2	22.4	19.7	16.6
	3	20.9	17.1	16.1
	4	14.4	15.4	14.6
	5	13.9	11.5	11.6
2018	1	25.5	24.2	22.4
	2	21.5	20.6	22.6
	3	18.3	18.2	17.8
	4	16.0	14.0	14.8
	5	12.6	13.4	11.4
2019	1	25.2	24.1	30.8
	2	23.8	18.5	22.7
	3	15.5	18.7	15.4
	4	16.5	17.4	13.9
	5	13.9	13.3	13.6
2020	1	34.7	28.0	24.1
	2	27.5	21.6	24.6
	3	21.6	19.7	15.8
	4	19.8	18.3	14.8
	5	16.7	15.1	14.1

Table 12

Percentage in Red+Blue+Borderline Zones England only, IMD quintiles (minimum of 1000 pupils in any given quintile and month)				
	Quintile	September	October	Nov/Dec
2017	1	29.1	28.2	30.8
	2	26.2	23.9	21.6
	3	25.6	21.4	20.1
	4	18.7	19.5	18.9
	5	13.9	14.7	14.8
2018	1	31.4	29.2	27.2
	2	25.8	25.5	28.4
	3	22.9	22.3	22.0
	4	19.9	17.6	18.8
	5	15.8	16.9	15.4
2019	1	29.9	30.1	36.2
	2	29.0	23.3	28.6
	3	19.0	22.7	18.9
	4	20.1	21.1	17.6
	5	17.2	17.3	17.0
2020	1	40.8	33.9	27.9
	2	33.3	26.3	29.6
	3	26.3	24.1	18.9
	4	25.2	22.8	17.6
	5	21.4	19.4	18.0

Table 13

The following charts are derived from the above tables:

Chart 8: Percentage in **Red Zone** by year and IMD Quintile - September

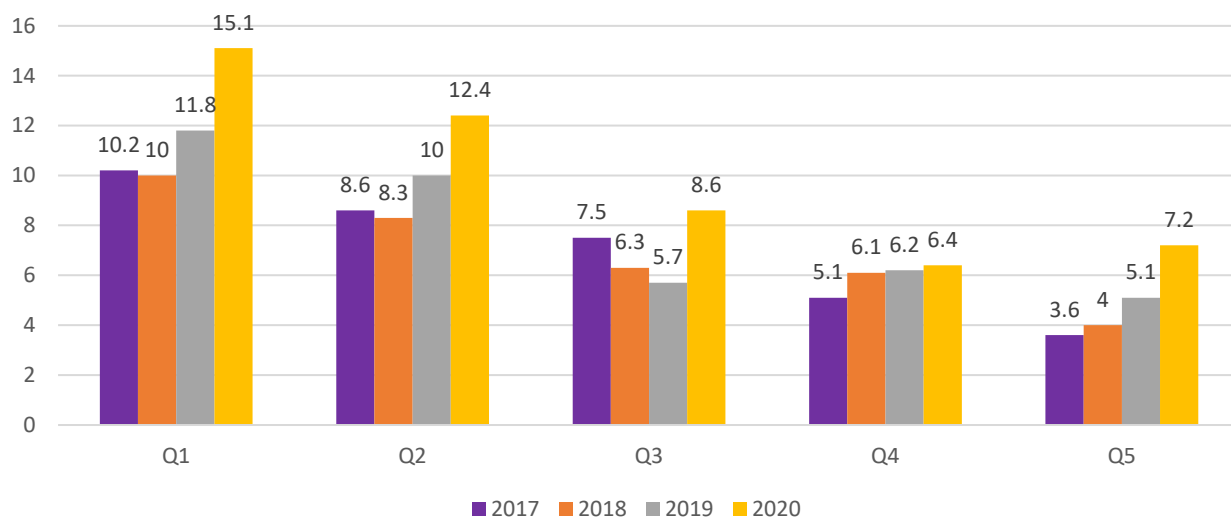


Chart 9: Percentage in **Red Zone** by year and IMD Quintile - October

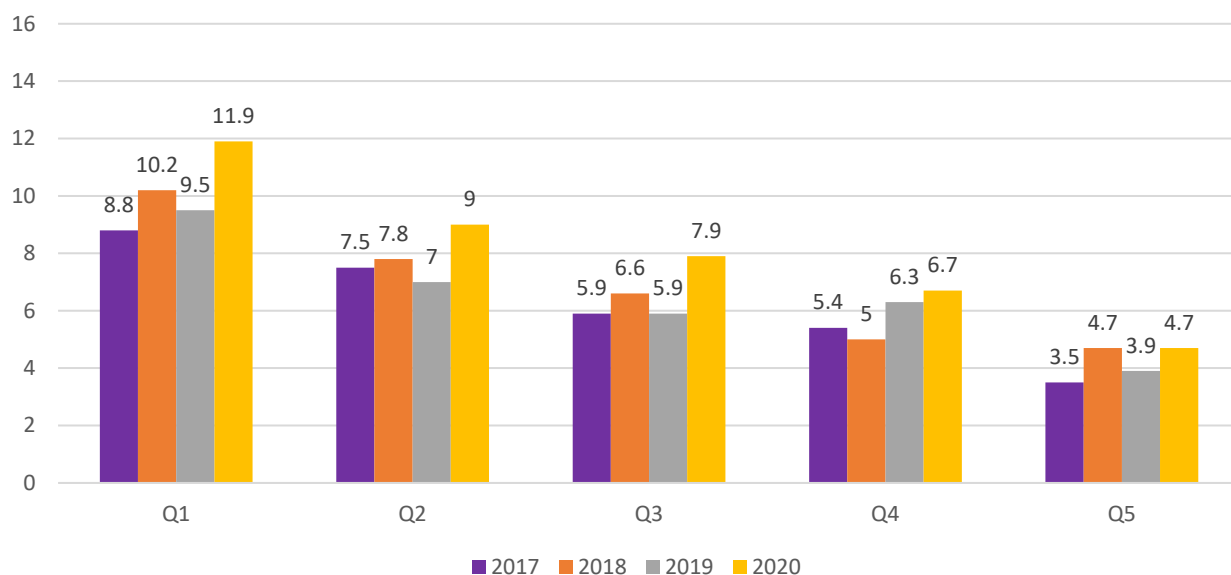


Chart 10: Percentage in **Red Zone** by year and IMD Quintile - Nov/Dec

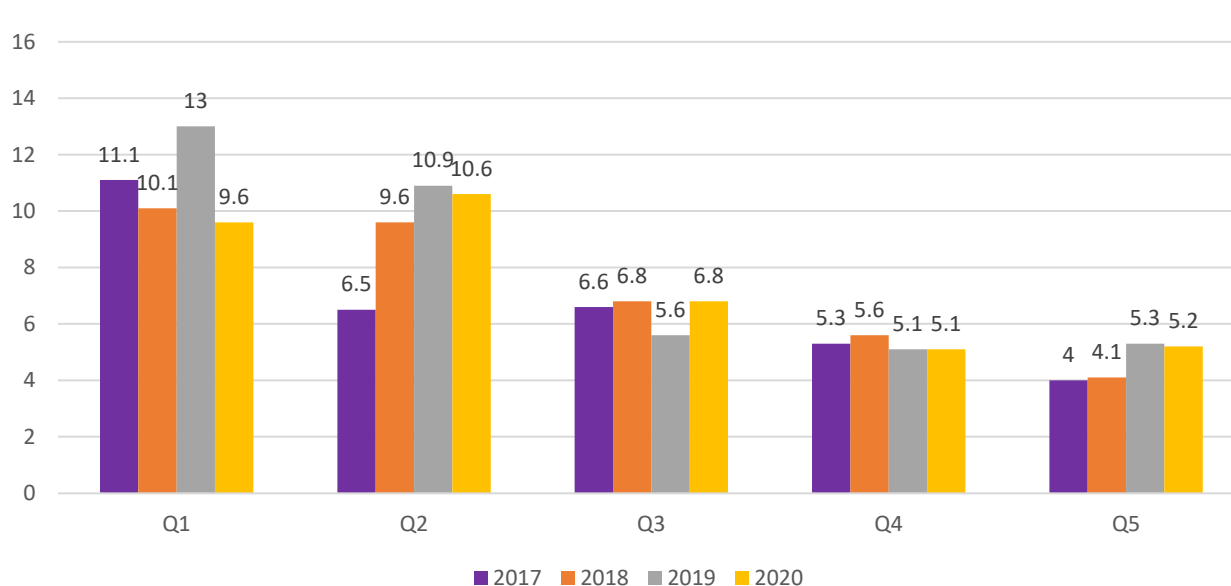


Chart 11: Percentage in **Red+Blue** Zone by year and IMD Quintile - September

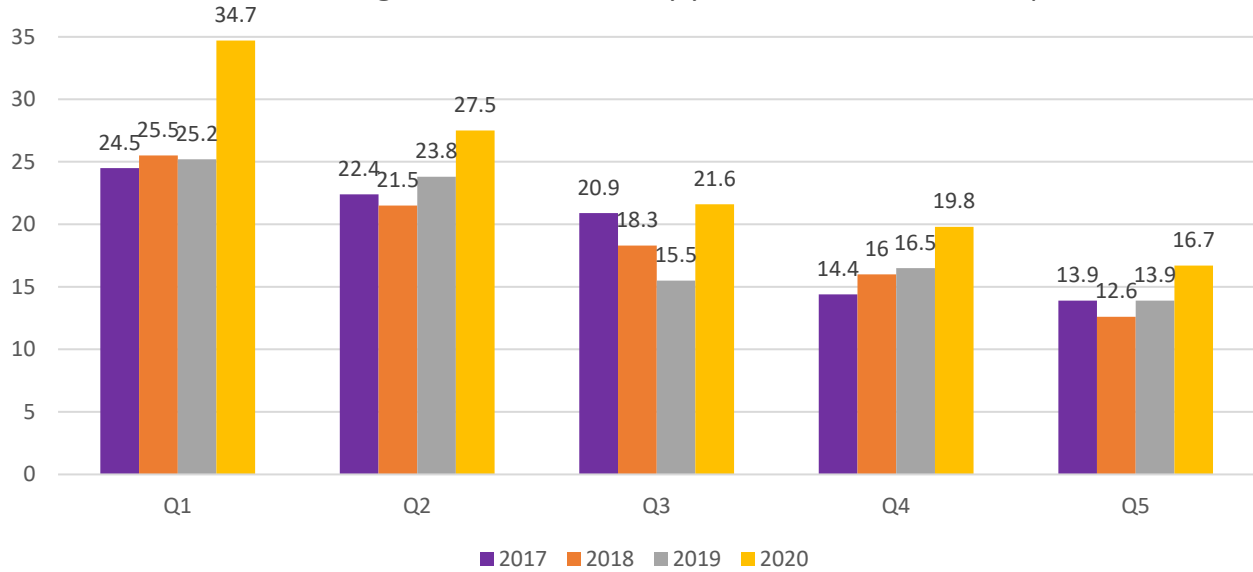


Chart 12: Percentage in **Red+Blue** Zone by year and IMD Quintile - October

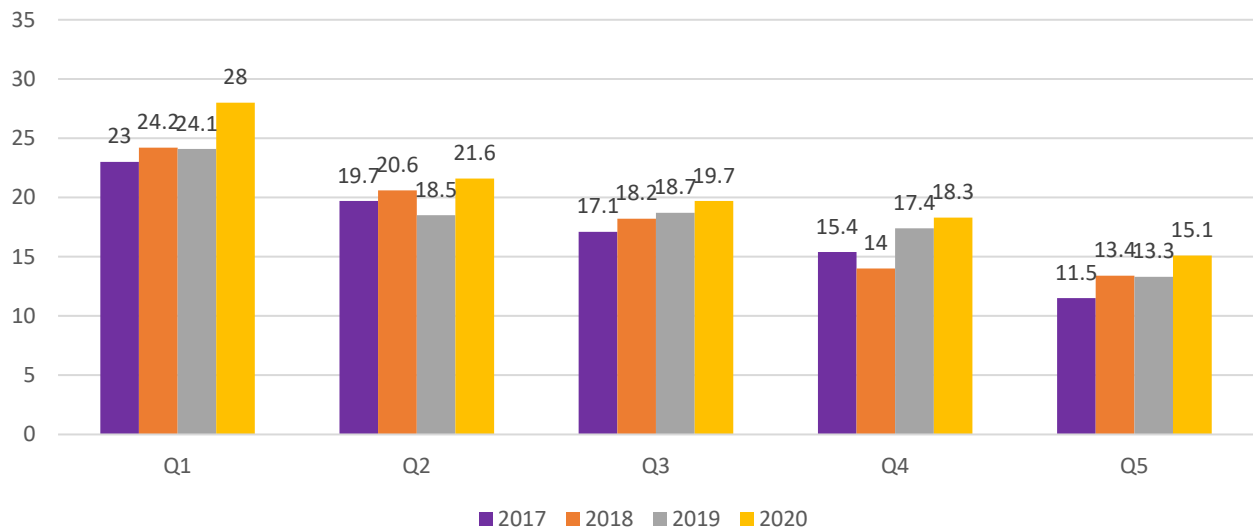


Chart 13: Percentage in **Red+Blue** Zone by year and IMD Quintile - Nov/Dec

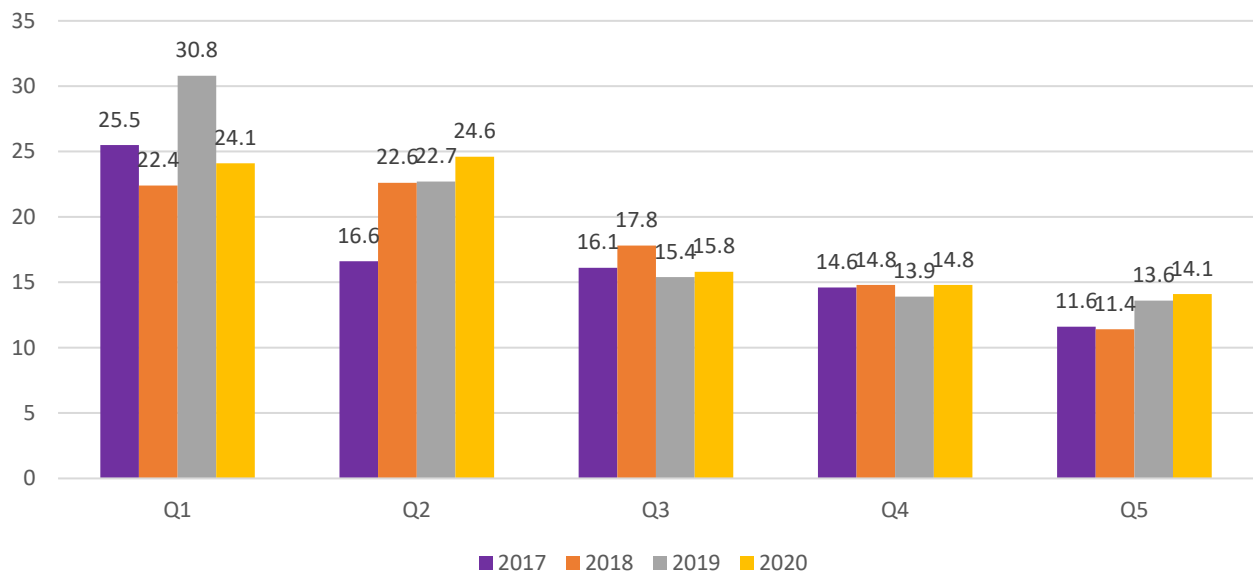


Chart 14: Percentage in **Red+Blue+Brdr** Zone by year and IMD Quintile - September

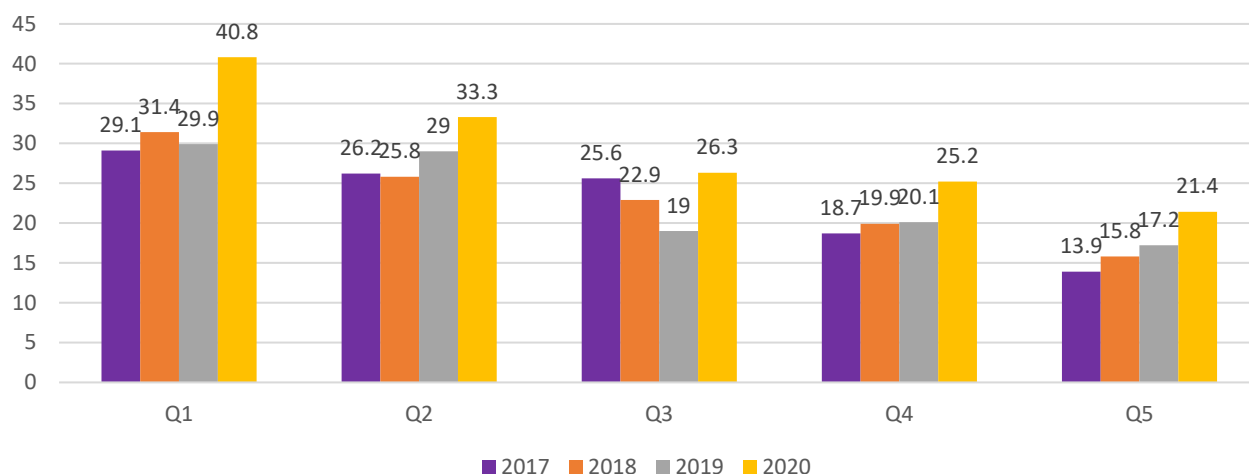


Chart 15: Percentage in **Red+Blue+Brdr** Zone by year and IMD Quintile - October

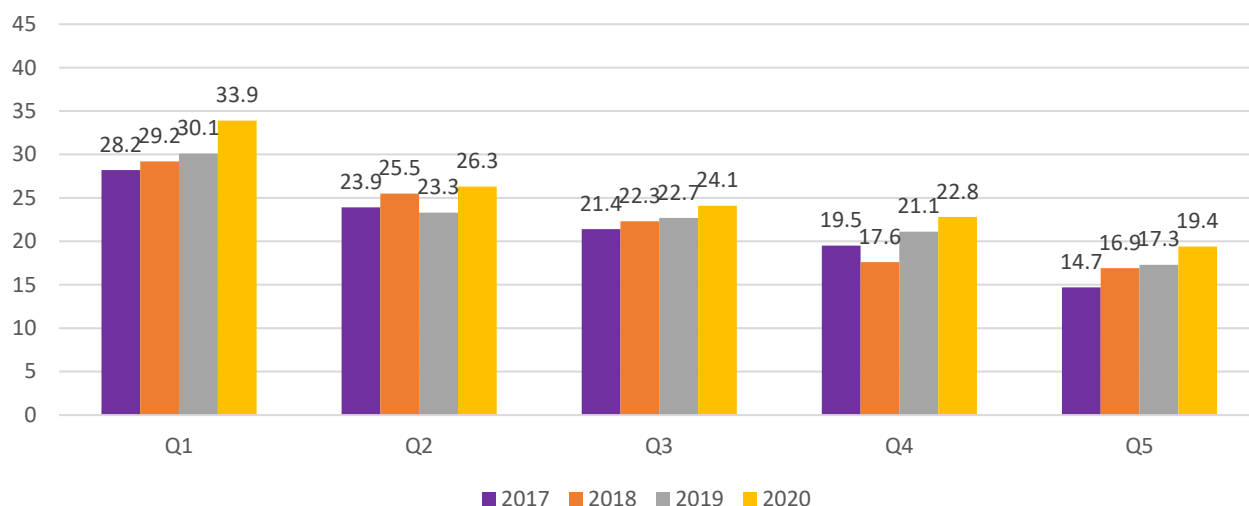
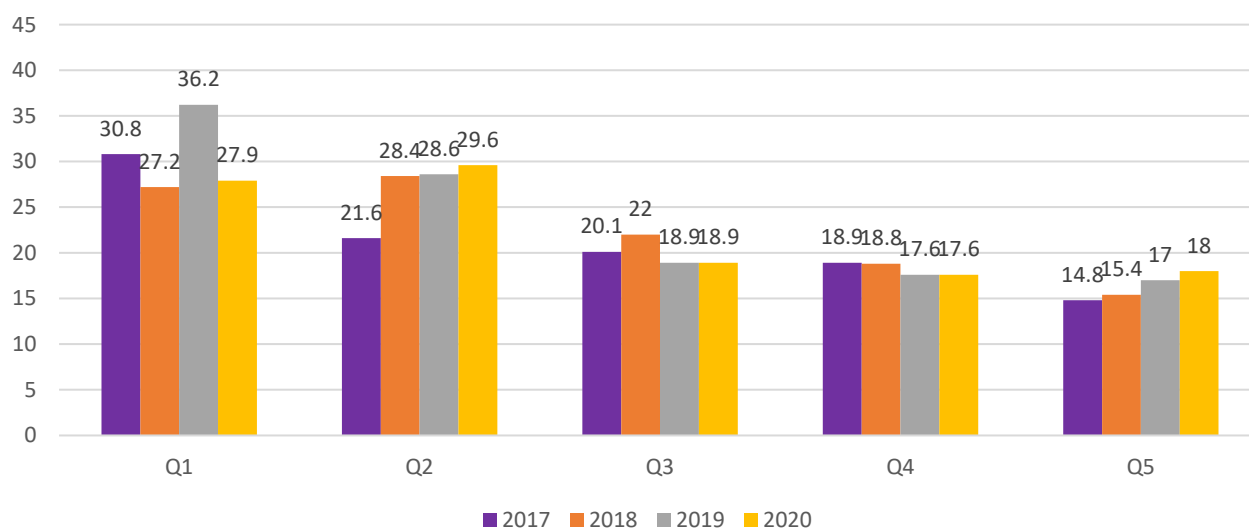


Chart 16: Percentage in **Red+Blue+Brdr** Zone by year and IMD Quintile - Nov/Dec



Discussion 2: Quintile Comparison

This discussion will focus on Charts 11 to 13, the Red+Blue zones together representing all scores below the 16th percentile.

Overall, the higher level of need in the lower quintiles is apparent. Whilst occasionally two adjacent quintiles may not fit the pattern, generally (for each year) each quintile has a lower percentage below the 16th percentile than the one prior.

A large 38% increase is recorded for September (Chart 11) for the 1st quintile between 2019 and 2020, resulting in more than one in three pupils recording a language level below the 16th percentile. This contrasts with the 20% increase recorded for the 5th quintile.

Reflecting the pattern in the overall figures (Chart 3) the year-on-year increase for any given quintile is less by the time we reach Nov/Dec. Nevertheless, this leaves us with about one in four pupils in quintiles 1 and 2 still recording levels below the 16th percentile.

Conclusion

The willingness to engage in universal screening tends to go hand in hand with an awareness of language and its importance in underpinning all other learning. Therefore, the figures shown above are more likely to be from schools that understand the problem and put measures in place to address it.

In an average year, the higher level of need recorded in September is likely to be, at least in part, due to assessing too early without sufficient settling in time. However, the significant increase in level of need in September 2020 is speculated to be due to both a very disrupted start to term and some aspect of the lockdown, possibly absence of nursery provision and other interaction with peers.

There remains an extremely high level of need by the end of the 2020 autumn term, particularly in the lower quintiles. Further, these children along with all others are now experiencing another lengthy time out of school (Spring 2020).

Looking forward to Year 1

We can get an initial idea of the effect of the first lockdown by looking at pupils assessed in autumn 2019 who were reassessed in autumn 2020 - this covers about 11,000 pupils. In “normal” years the number in our Red zone reduces by about 33% by the time of the Year 1 measurement, In 2019 – 2020 it only reduced by 19%.

Speech Link Multimedia Ltd therefore welcomes any initiative that gives support to children with speech, language and communication needs. Bearing in mind that research in previous years shows language difficulties are likely to extend far beyond the Reception year, and that 2020 and 2021 present considerable extra challenges to language development, we encourage the allocation of resources for all primary year groups and into secondary school. Plans require long-term vision and consideration of all available solutions.

The assessment, training and intervention packages delivered by Speech Link Multimedia Ltd extend from Reception to the end of KS3. This entire online, therapist supported suite can be made available to every state funded school in England for less than the amount recently allocated to a single Reception year language intervention.

For all questions and enquiries relating to the above please email office2@speechlink.co.uk