Early Grade Reading Assessment

Concern Niger

Tahoua, Endline 2019 – 2021

Contents

Cover Photo: EGRA Survey, Aguèye School, November 2021. Photo: Anna Soravito / Concern Worldwide
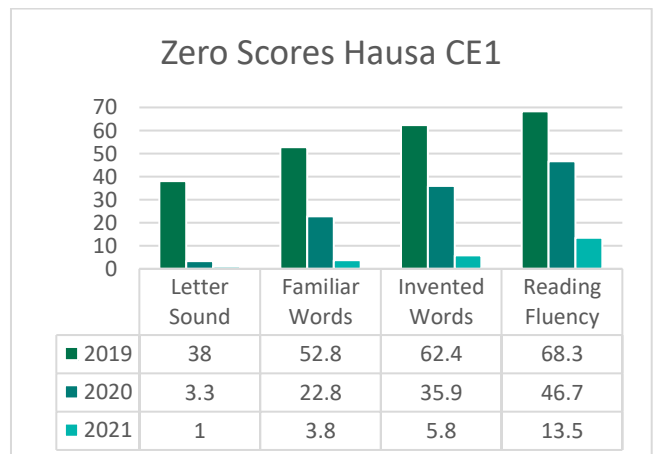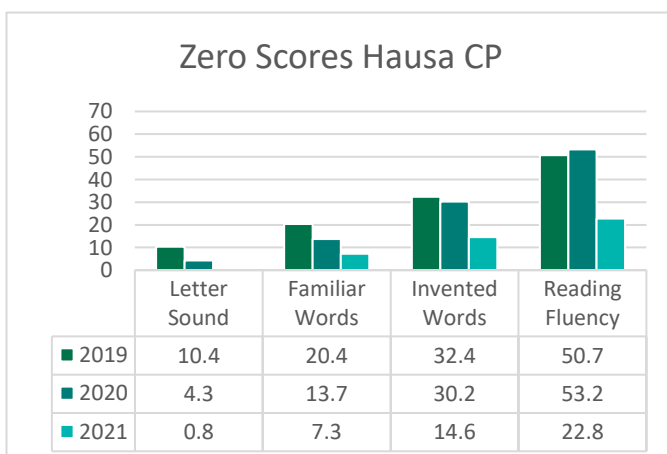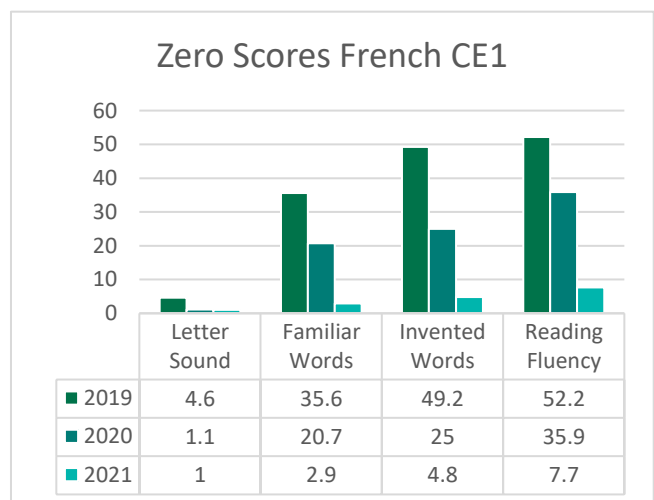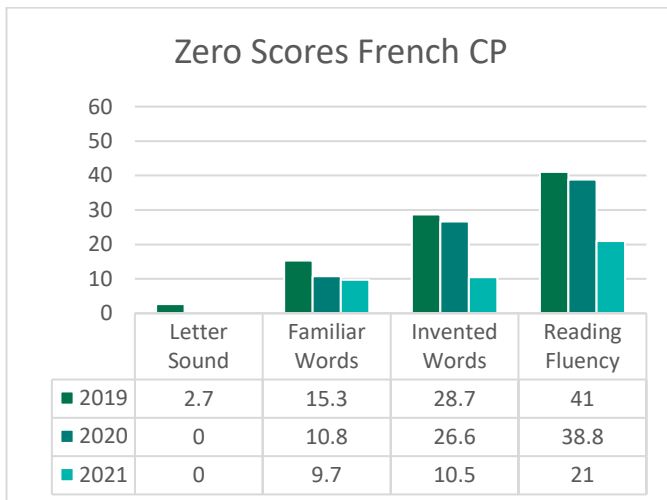
Executive Summary

Concern Worldwide carried out an Early Grade Reading Assessment (EGRA) in target schools in the conflict-affected Tahoua region of Niger. The assessment, carried out at the beginning of the 2021/2022 academic year to assess the results of the 2020/2021 academic year, as part of a bilingual early grade programme, shows that while reading levels of children remain significantly below expected thresholds for the grade, some major improvements have been observed over the past years.

It is also important to note than due to COVID-19, all schools were closed for 3,5 months from 01/03/2020 to the 15 of June 2020. This interruption in education is to be considered in the interpretation of results of year 2 (2020/2021) and year 3 (2021/2022) as this means that children had less time in school than students the years before. Additionnal support and training on EGRA took place in Tahoua in September 2021 from the HQ Education Advisor, reinforcing the reliability of the data collection process and understanding of the tool for the year 3 data collection.

Results for the 228 students assessed, 124 from CP (Grade 2) and 104 CE1 (Grade 3), showed significant improvements in students' learning for all subtasks over the past 3 years. We see a general increase in proficiency and overall reductions in the proportion of children scoring zero. There were 52% of CE1 children unable to identify the sound of one letter in French in 2019, down to 7.7% in 2021. While it is quite high to have almost 10% of children unable to read one letter after 3 years of school, it is still a major improvement in quite a short amount of time.

Looking at the % of zero scores, it is also interesting to note that the gap between the languages has reduced in 2021. Even though languages cannot be directly compared due to the differences in tonal relationships and orthography we can consider the % scoring zero. This percentage was much lower in French and the difference with Hausa was much more important in the previous years. This can be due to more support provided to teachers in mother tongue literacy throughout 2020.

Zero Scores French CP

	Letter Sound	Familiar Words	Invented Words	Reading Fluency
2019	2.7	15.3	28.7	41
2020	0	10.8	26.6	38.8
2021	0	9.7	10.5	21

Zero Scores French CE1

	Letter Sound	Familiar Words	Invented Words	Reading Fluency
2019	4.6	35.6	49.2	52.2
2020	1.1	20.7	25	35.9
2021	1	2.9	4.8	7.7

Zero Scores Hausa CP

	Letter Sound	Familiar Words	Invented Words	Reading Fluency
2019	10.4	20.4	32.4	50.7
2020	4.3	13.7	30.2	53.2
2021	0.8	7.3	14.6	22.8

Zero Scores Hausa CE1

	Letter Sound	Familiar Words	Invented Words	Reading Fluency
2019	38	52.8	62.4	68.3
2020	3.3	22.8	35.9	46.7
2021	1	3.8	5.8	13.5

The results also revealed an overall increase in mean and median scores thoughout those 3 years, in both levels and both languages, especially from 2020 to 2021 and in CE1.

Children went from being able to read 28 letters in French correctly in CE1 in 2019 and 2020 to 52 and in Hausa from 11 to 26 to 53 in 2019, 2020 and 2021 respectively. While it is an improvement, the level is lower than expected at the grade and the proficiency diminishes throughout the subtasks. It still shows that children are starting to build stronger foundations in the lower order skills, which will be essential to develop fluency and automaticity in reading.
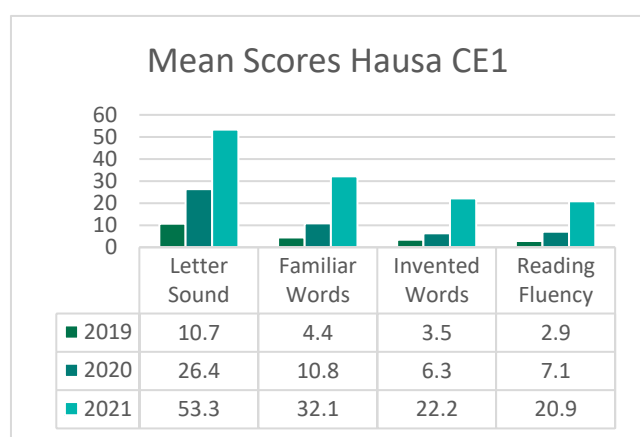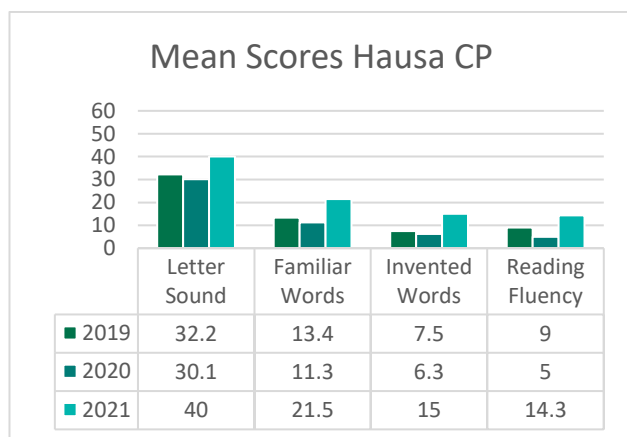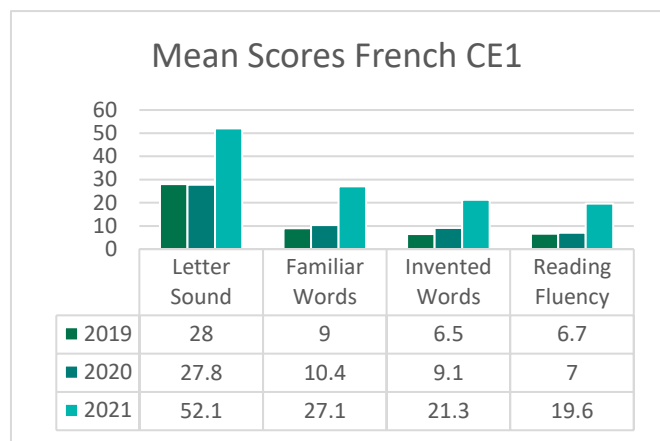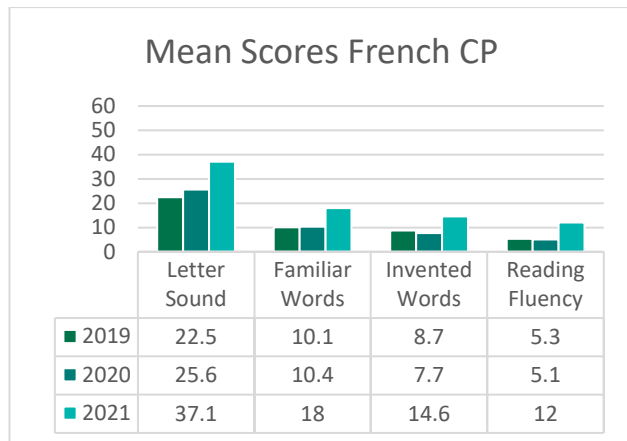
Mean Scores French CP

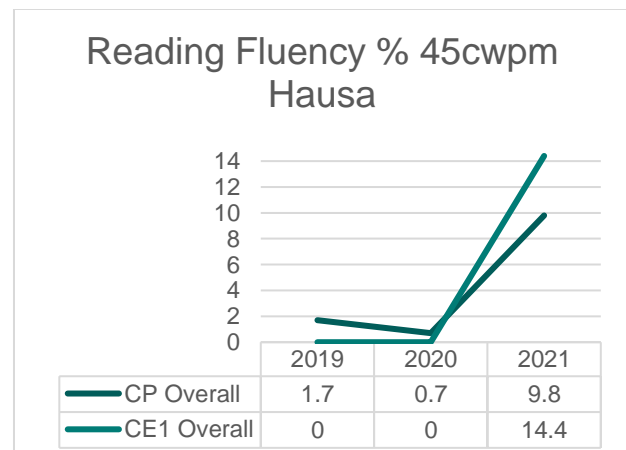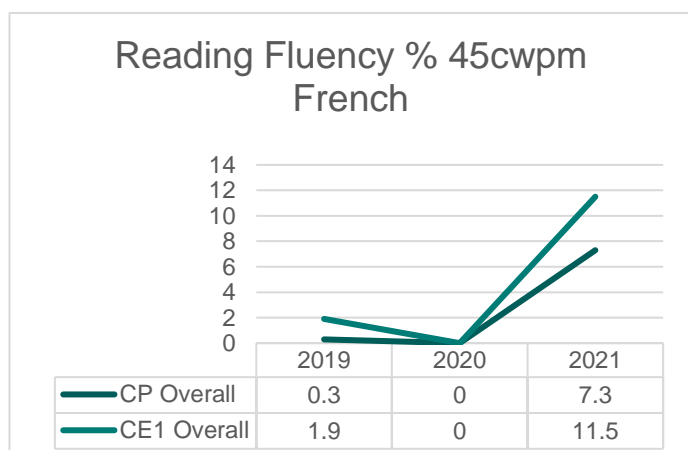|	Letter Sound	Familiar Words	Invented Words	Reading Fluency
2019	22.5	10.1	8.7	5.3
2020	25.6	10.4	7.7	5.1
2021	37.1	18	14.6	12

Mean Scores French CE1

	Letter Sound	Familiar Words	Invented Words	Reading Fluency
2019	28	9	6.5	6.7
2020	27.8	10.4	9.1	7
2021	52.1	27.1	21.3	19.6

Mean Scores Hausa CP

	Letter Sound	Familiar Words	Invented Words	Reading Fluency
2019	32.2	13.4	7.5	9
2020	30.1	11.3	6.3	5
2021	40	21.5	15	14.3

Mean Scores Hausa CE1

	Letter Sound	Familiar Words	Invented Words	Reading Fluency
2019	10.7	4.4	3.5	2.9
2020	26.4	10.8	6.3	7.1
2021	53.3	32.1	22.2	20.9

A gender gap and trend is also observed between CP and CE1 throughout all the subtasks (girls were performing slightly less well than boys in CP and then better in CE1). While this is not significant considering the confidence interval, it is a trend that was observed in 2020 and in 2021. It is also to notice that there were less girls present than boys on the assessment days (smaller sample size) so a recommendation will be formulated to monitor attendance and dropout rates to try to understand these results.

Reading Fluency % 45cwpm French

	2019	2020	2021
CP Overall	0.3	0	7.3
CE1 Overall	1.9	0	11.5

Reading Fluency % 45cwpm Hausa

	2019	2020	2021
CP Overall	1.7	0.7	9.8
CE1 Overall	0	0	14.4

With regard to percentage of students meeting the minimum fluency benchmark, overall 7.3% of children in CP and 14.4% of children in CE1 could read with fluency in French. In Hausa, 9.8% of children in CP and 14.4% of girls in CE1 could read Hausa with fluency. Although this is an important improvement compared to last year where the scores were 0, we see from the repartition of scores that it is mainly due to a few children performing extremely well, indicating that although children are beginning to read words, the majority of them is not developing the fluency required for meaningful reading (which is in line with the results for the lower order skills).

Conclusion

The results for all subtasks over the past 3 years revealed significant improvements in students' learning in low and higher order skills, especially with months spent out of school due to COVID related school closures between 2019 and 2020. General increase in proficiency for both lower and higher order skills (from 2019 to 2020 but especially from 2020 to 2021) are still showing overall reductions in the proportion of children unable to identify a single letter sound or word and overall increase in mean and median scores.

With these improvements in mind, it is still essential to note that the results remain lower than what is expected after finishing 2 and 3 years of school. Proficiency diminishes as pupils move to more complex higher order skills, with fluency and comprehension being negligible in both languages at both CP and CE1 levels for the majority of children.

Recommendations

- **Children to be more exposed to writing:** It is recommended to increase the amount of exposure that children get to writing and to words they've learned (use of the manuals, learning environment more conducive and enriching, posting words on the walls, enrich libraries etc).

- **Inclusive Pedagogy:** it is recommended that teachers are provided with the appropriate skills to differentiate instruction and support all students, especially the most vulnerable that are being left behind to homogenously develop lower order skills in all grade levels and languages.

- **Gender sensitive monitoring:** It is recommended to continue to apply gender responsive approach to all teacher professional development with a particular focus on ensuring girls continue to receive the required support in the lower grades and boys continue to be supported in the highest grades.

1. __Background Information__

Niger faces serious developmental challenges, stemming from a population that is predominantly young, poor, rural, and rapidly growing. With an estimated population of 21.5 million in 2017, 50% of whom are under the age of 15, Niger has one of the highest population growth rates in the world at 3.9% annually. The rise of extremism and prolonged instability in Niger has also led to a high level of vulnerability within the youth and has increased the fragility of the country. The humanitarian and security situation in Diffa Region has deteriorated considerably since the beginning of the Boko Haram attacks on Nigerian territory in February 2015 causing family displacement rates to soar and conflict related trauma to become commonplace. It is no surprise that children's education has been disrupted. Niger's young population and rapid population growth continues to put significant pressure on the education system. The barriers to education for children in a context with a poor quality education system, are numerous. Only 19% of the Nigerien population over 15 years is literate, of which 52% are male youths and 23% female youths (15-24 years). School enrolment rates are amongst the lowest in the world (62.4% net enrolment) and low levels of primary and secondary-level education are a reality for boys and girls.

Concern has been working in Niger since 2003 and has built up a strong network and presence in the country, with a deep and nuanced understanding of the context and experience across a broad spectrum of programming: health and nutrition; livelihoods, food security, education, WASH and emergency. It was in Tahoua Region where Concern first implemented a primary education programme in 2003 and rolled out the initial Early Grade Reading Assessment (EGRA) and mother tongue bilingual education model.

As part of this intervention, an Early Grade Reading Assessment was carried out from the 22nd to the 29th of November 2021 in both French and Hausa. The students were assessed at the beginning of grade 3 (CE1) and grade 4 (CE2) to reflect the learnings from Grade 2 (CP) and Grade 3 (CE1). This report presents the main results and analysis of this endline assessment as well as the comparison with the results from 2019 (baseline) and 2020 (midline).

2. __Assessment & Methodology__

2.1 __The Early Grade Reading Assessment__

The Early Grade Reading Assessment (EGRA) is based on the Research Triangle Institute (RTI) assessment created in 2007, in response to evidence that large numbers of children in developing countries were leaving school early, or completing school, without learning to read. The original function of the assessment was a sample-based system-level diagnostic tool to inform national education priorities. Based on universal reading principles, the assessment has been adapted to 100 languages and local standards in over 60 countries and is now commonly used for programme level monitoring and evaluation.

International benchmarks generally focus on oral reading fluency, tested within EGRA, because of its predictive power for other literacy skills. RTI suggests a benchmark of between 45 and 60 correct words per minute in English in grade 2 for poor countries with linguistic complexity. This is based on the minimum fluency needed to capture information in the short-term memory, which is necessary for comprehension. The French Ministry of Education considers an average of 50 correct words per minute at the end of Grade1, 70 in Grade 2 and 90 in Grade3. To-date, a benchmark or standard for Niger in French or the Hausa language has not been established, therefore, the programme (and this report) uses the 45cwpm as a minimum standard for reading fluency.

The EGRA tasks used by the programme were adapted in 2013 for French and in 2018 in Hausa, based on the Nigerien curriculum and class levels. The tool was designed in consultation with Gerard Conda, the head of Monitoring and Evaluation at the Nigerien Ministry of Education, and an independent consultant. The tool was rendered to Tangerine by the Country Education team and updated every year. In 2020 and 2021, the order of items in each subtest was changed from the 2019 tool to ensure the assessment remained sight unseen for all students, however to ensure correlation and to allow comparison, the content of each subtask was maintained.

Five subtasks of Letter Sound Knowledge, Familiar Words, Invented Words, Oral Reading Fluency and Comprehension are included in both French and Hausa (please see findings for a description of each subtask).

In November 2021, the test was administered digitally, using data gathering devices and enumerators from Concern and MoE Education Advisors and inspection staff from Tahoua. Data collection took place between the 22nd and 29th of November following a 3-day training, led by Concern Education Programme staff. The training included training and practice on the tool and then practice with the digital devices.

2.2 Sampling

The sampling calculation process followed a process of cluster sampling according to the security situation. Schools were sampled (random cluster sampling where each school represents a cluster unit) among the intervention schools according to their accessibility (due to security situation). This approach differs from previous sampling methodologies of sampling students from every school using simple random sampling of equal fraction. Simple random sampling of equal fraction was not possible due to the significantly increased exposure to security risks. Given the highly volatile context it was necessary to adjust methodology to ensure safety and security of both assessors and participants.
While the programme supports schools in both districts of Bambeye and Tebaram, the EGRA in 2021 has been carried out only in the Bambeye district as the level of insecurity was too high in Tebaram and the movements had been suspended at that time. Therefore, it is important to note, that although this report does make comparisons of results over time, the change in sampling must be considered.

The sampling aimed for a representative sample at 95% confidence and 5% error on the school population that was eligible for the assessment (accessible schools and Grades 2 and 3). Out of the 29 schools supported by Concern in Tahoua, 10 schools were removed of the sampling because located in Tebaram that wasn't acccessible for security reasons, 8 schools were removed because they don't have either Grade 2 or Grade 3 and 3 were remove because they are Arabic schools (medresa). There were therefore 7 schools remaining with a total population of 592 children in CP and CE1 and so a sample size of about 230 children (caclulated with a sample size calculator). The list of school is then randomized and picked in the order of the randomized list. The amount of schools visited for the assessment is based on the amount of children present on the days of the assessment. All children present in CP and CE1 are assessed and enough schools are visited to meet the sample size.
All children but one declared speaking Hausa and have therefore been assessed both in French and in Hausa.

Grade and Gender

Sample size	CP			CE1			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
French	64	60	124	66	38	104	130	98	228
Hausa	64	59	123	66	38	104			

By Age:

	CP (7-9 years old)				CE1 (9 – 11 years old)		
Age	8	9	10	11	9	10	11
Number children	1	83	33	7	4	80	20

2.3 Data Analysis

For each Grade across each Subtest data analysis focused on
- A summary table with minimum, 1st quartile, median, mean, 3rd quartile, maximum and % scoring zero disaggregated by sex
- Mean scores with confidence intervals disaggregated by sex

- Two Box plots[1] showing the distribution of scores for each grade, as well as for male and female within each grade where:
  - The top and bottom of the box are 25th and 75th percentile (ie where the middle 50% of the scores lie)
  - The centerline is the 50th percentile or the median
  - The line extending vertically from the boxes (whiskers) indicate the variability outside the upper and lower quartiles
  - The "dots" at the end of the boxplot represent outliers in the data set
- Graph of comparison over times

For Reading Fluency Subtest, additional calculations for each grade of:
- % scoring 45cwpm disaggregated by sex

For Reading Comprehension Subtest calculations for each grade are:
- Average % of questions correct (where the % correct is calculated from the % of questions attempted) disaggregated by sex
- % scoring 80% in the comprehension subtask (where the % correct is calculated from the % of questions attempted) disaggregated by sex

2.4 Limitations

Results should be interpreted within the following limitations:
- Sampling:
  - Sampling was based on project schools with the aim of assessing reading standards among this population. The data is not intended to be representative of the district or national early grade population.
  - The sampling has been calculated with the total population and all children present on the day have been assessed so some groups (for example there are fewer girls in CE1) will be less representative.
  - Due to significant security restrictions, it was not possible to sample all schools as with previous assessments and inaccessible schools were removed from the selection process. Only schools in Bambaye have been assessed, which may have skewed results.
  - This approach differs from the 2019 methodology of sampling students from every school using simple random sampling of equal fraction. This was not possible due to the significantly increased exposure to security risks so it was necessary to adjust methodology to ensure safety and security of both assessors and participants. Therefore, it is important to note, that although this report does make comparisons of results over time, the change in sampling methodology and sample schools must be considered over the 3 years.
  - It is also important to note than due to the school closures related to COVID-19, results from 2020 are reflective of the school closures and might not be directly comparable. Children have had less time in school than students in the same level last year and, especially in the lower grade, children might not have retained learnings from earlier in the year.
  - The assessment has been carried out after the annual break so children had been out of school for an additionnal two months. This is expected to result in slight regression.

- Language:
  - Direct comparisons across French and Hausa are not possible due to the differences in each language including word length, sentence structure and tonal relationships, therefore this report is unable to draw conclusions across the various languages based on comparison of mean scores. However, it is possible to compare the progress towards minimum standards and the percentage of zero scores as basic benchmark metrics and the gender disparity within each language.

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[1] For more information on boxplots see Wikipedia Boxplots

3. Findings

3.1 Letter Sound Knowledge

This sub-task assesses pupils' phonemic awareness and knowledge – that each letter symbol represents a sound which can be verbally communicated. This is a pre-requisite skill for fluent reading of unfamiliar texts. This is a timed task in which pupils are shown a chart containing 100 upper and lower case letters arranged in rows of ten each with ten letters. Pupils are asked to produce the sounds associated with each letter as quickly and accurately as they can within one minute.

Results Summary- Letter Sound Knowledge 2021

| | CP | | | | | | CE1 | | | | | |
| | French | | | Hausa | | | French | | | Hausa | | |
	Male	Female	Overall	Male	Female	Overall	Male	Female	Overall	Male	Female	Overall
Min.	3.0	2.0	2.0	7	0	0	0	9	0	0	12	0
1st Qu.	20.8	20.0	20.0	25.8	20.5	22	38.5	35.5	36.5	31	36.2	31.8
Median	34.5	31.5	34.0	36	26	34	52.5	51	52	58	52	56.5
Mean	37.5	36.6	37.1	43.7	35.9	40	51.5	53.1	52.1	51.9	55.7	53.3
3rd Qu.	47.2	50.2	50.0	63.2	49.5	57	67	75.8	71.2	74.5	79.5	75
Max.	86.0	83.0	86.0	91	85	91	97	86	97	85	88	88
% zero	0	0	0	0	1.7	0.8	1.5	0	1	1.5	0	1

Mean Scores with Confidence Intervals- Letter Sound Knowledge 2021

| | CP | | | | | | CE1 | | | | | |
| | French | | | Hausa | | | French | | | Hausa | | |
	Lower CI	Mean	Higher CI	Lower CI	Mean	Higher CI	Lower CI	Mean	Higher CI	Lower CI	Mean	Higher CI
Male	32.3	37.5	42.6	37.9	43.7	49.6	45.8	51.5	57.2	46.1	51.9	57.8
Female	31.0	36.6	42.3	30	35.9	41.8	46.1	53.1	60.1	48	55.7	63.4
Overall	33.3	37.1	40.8	35.8	40	44.2	47.7	52.1	56.5	48.7	53.3	57.9

Boxplot Graphs- Letter Sound Knowledge 2021
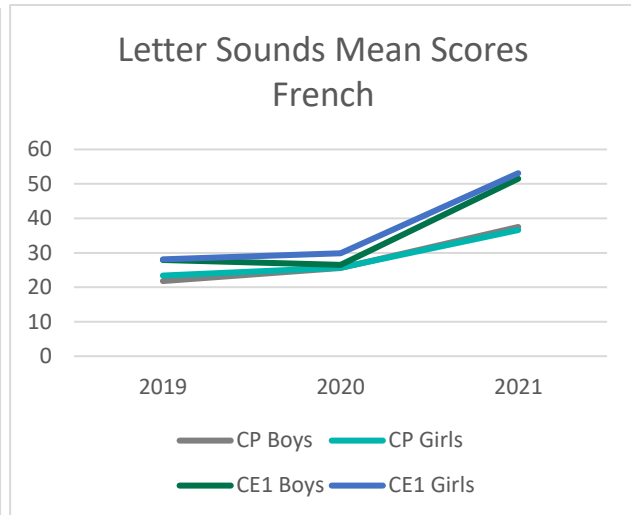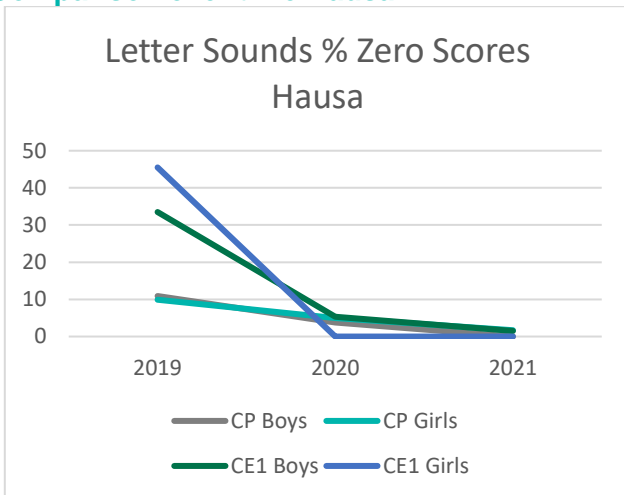
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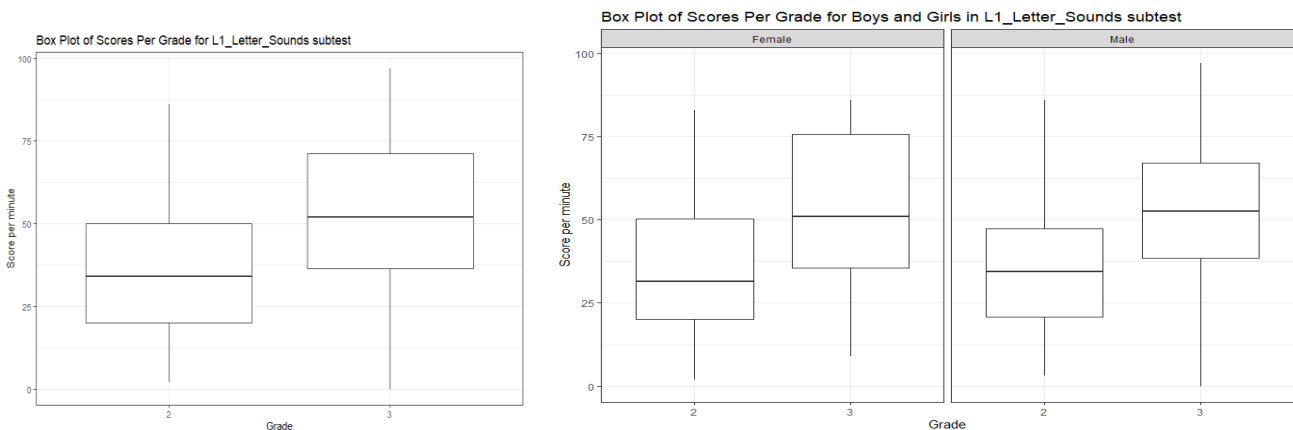
Hausa
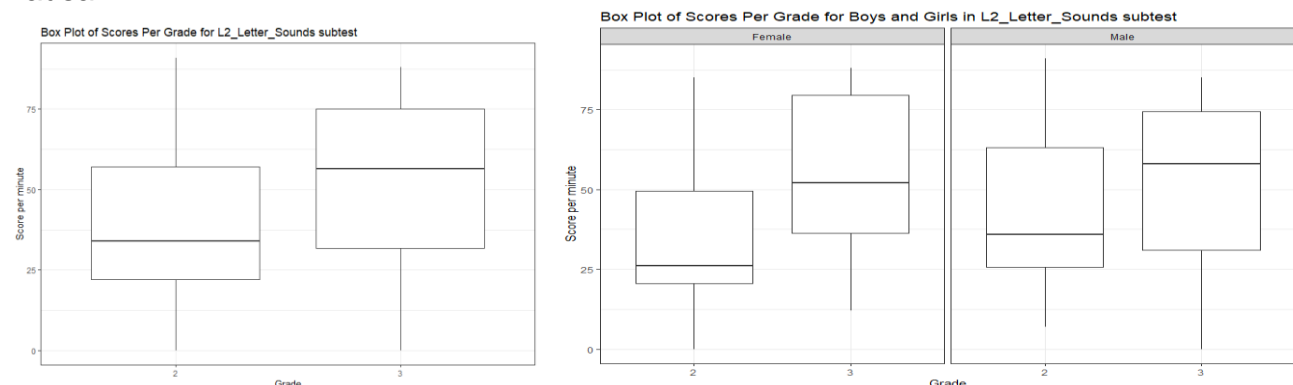
Comparison over time (2019-2021) French:

Letter Sounds % Zero Scores French

Letter Sounds Mean Scores French

Comparison over time Hausa:

Letter Sounds % Zero Scores Hausa
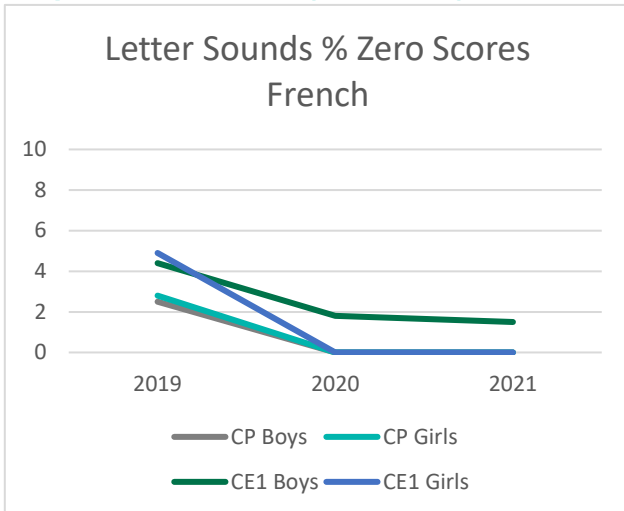
Letter Sounds Mean Scores Hausa
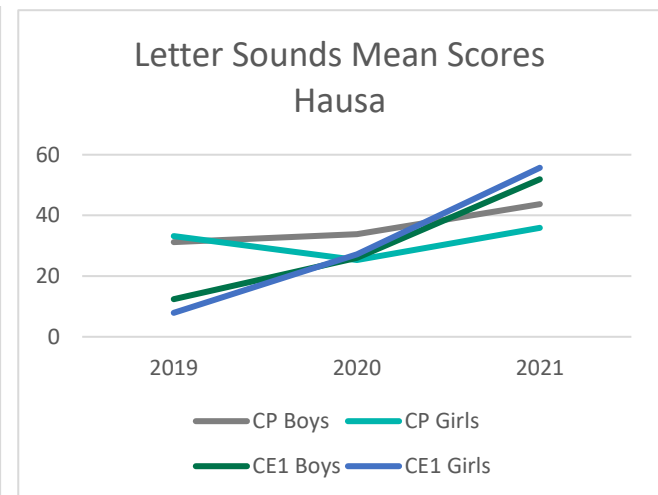
Narrative- Letter Sound Knowledge

Almost all children could identify some letter sound correctly (with the exception of a couple), both in French and Hausa. This improvement in the % of zero scores has been observed especially between 2019 and 2020.

In French in 2021, children can read on average 37 letter sound correctly in CP and 52 in CE1. In Hausa, children can read on average 40 letter in CP and 53 in CE1. This is also in line with the teaching which is mainly in Hausa for the first year and then increasingly in French.

The repartition of scores remains homogeneous and constant between CP and CE1, between boys and girls and in French and Hausa. There is a slight tendency for girls to have average scores slightly lower than boys in CP and higher in CE1 but this is not significant (and the smaller sample size for girls in CE1 needs to be considered as there is a higher margin of error).

It is important to note that the children assessed in CE1 in 2020 are the same cohort as those assessed in CP in 2019 and the students in CP in 2020 are the same cohort as the CE1 in 2021. The results for CP in 2020 are comparatively high to CE1 in 2020 but this is considering that teachers in 2020 have had 3 years of support and training and so it is expected that children developed stronger foundations from CI and therefore have a higher level in CP than previous cohorts who did not have trained teachers from CI (specifically for this subtest as it is a competency learned in CI). The results in 2021 are more in line with what is expected with students in CE1 having a higher level than CP. While the results for this subtask are still low compared to what could be expected at this grade, we do observe an increase in scores between the CP in 2020 and the CE1 in 2021 showing an improvement in learning in the cohort.

3.2 Familiar Word Reading

This sub-task assesses the ability to read a list of familiar high-frequency words selected from relevant early grade reading materials for the language and context. The words are unrelated and therefore assess the child's ability to recognise and decode words without the context of a story /connected text. The pupils are presented with a grid of 50 words and are asked to correctly read as many words as they can within one minute.

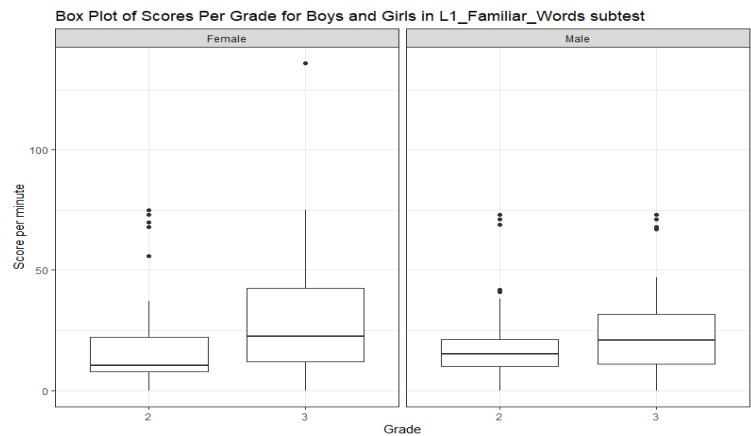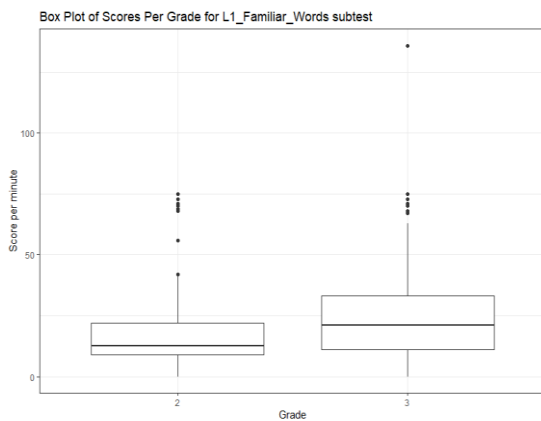### Results Summary- Familiar Word Reading

	CP						CE1					
	French			Hausa			French			Hausa		
	Male	Female	Overall	Male	Female	Overall	Male	Female	Overall	Male	Female	Overall
Min.	0	0	0	0	0	0	0	0	0	0	0	0
1st Qu.	10	7.8	9	11.8	8	9	11	12	11	10.2	13.8	11.8
Median	15	10.5	12.5	18.5	12	16	21	22.5	21	22.5	22.5	22.5
Mean	18.7	17.3	18	24	18.7	21.5	24	32.4	27.1	28.8	37.7	32.1
3rd Qu.	21.2	22	22	28.2	21.5	24.5	31.8	42.5	33.2	37	75	39.2
Max.	73	75	75	97	79	97	73	136	136	88	86	88
% zero	7.8	11.7	9.7	6.2	8.5	7.3	3	2.6	2.9	4.5	2.6	3.8

Mean Scores with Confidence Intervals- Familiar Word Reading

	CP						CE1					
	French			Hausa			French			Hausa		
	Lower CI	Mean	Higher CI	Lower CI	Mean	Higher CI	Lower CI	Mean	Higher CI	Lower CI	Mean	Higher CI
Male	14.6	18.7	22.8	11.8	17.4	23.1	14.1	18.2	22.4	22.9	28.8	34.8
Female	12.7	17.3	21.8	6.6	11	15.4	15.1	22	29	28.2	37.7	47.2
Overall	15	18	21.1	10.7	14.3	18	16	19.6	23.3	26.9	32.1	37.2

Boxplot Graphs- Familiar Word Reading
French

Box Plot of Scores Per Grade for L1_Familiar_Words subtest

Box Plot of Scores Per Grade for Boys and Girls in L1_Familiar_Words subtest

Hausa

Box Plot of Scores Per Grade for L2_Familiar_Words subtest

Box Plot of Scores Per Grade for Boys and Girls in L2_Familiar_Words subtest

Comparison over time:

French

Familiar Words % Zero Scores French
CP Boys, CP Girls, CE1 Boys, CE1 Girls

Familiar Words Mean Scores French
CP Boys, CP Girls, CE1 Boys, CE1 Girls

Hausa

Familiar Words % Zero Scores Hausa
CP Boys, CP Girls, CE1 Boys, CE1 Girls

Familiar Words Mean Scores Hausa
CP Boys, CP Girls, CE1 Boys, CE1 Girls
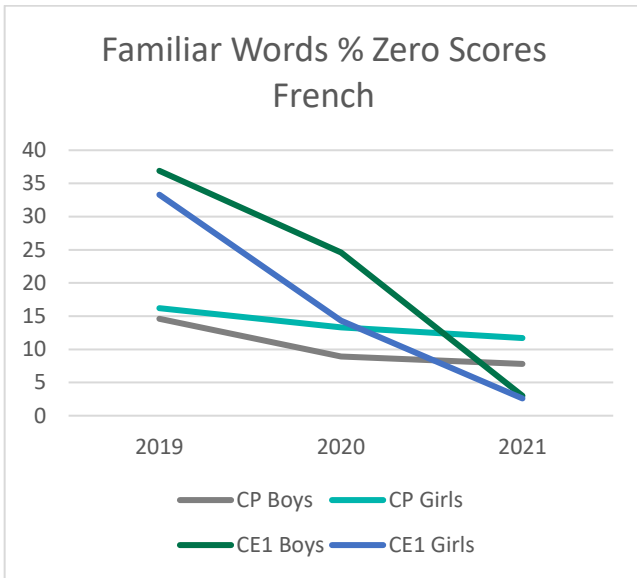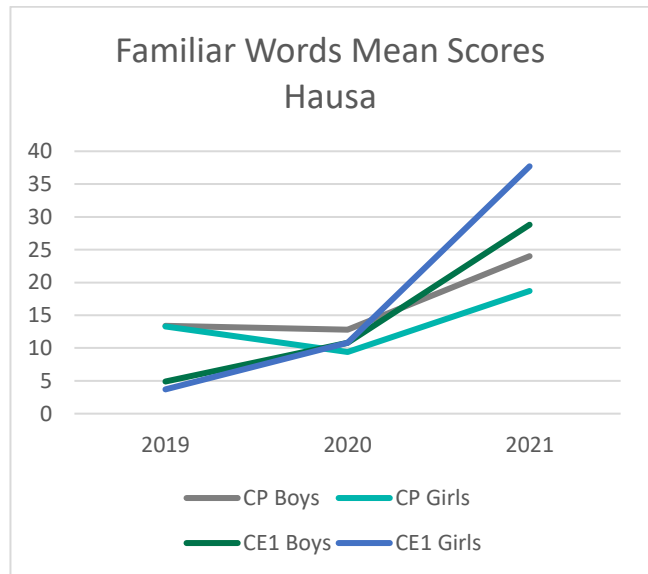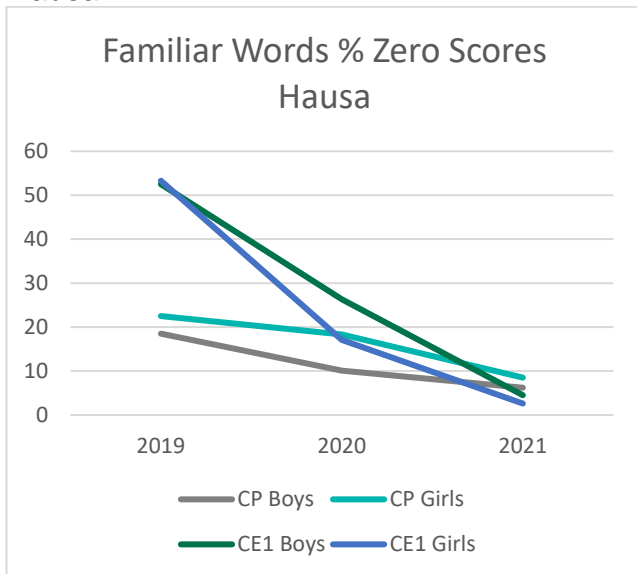
Narrative- Familiar Word Reading

A similar trend over time is observed in the Familiar word reading subtasks as in the letter sound subtask, both in French and Hausa. The same hypothesis can be made as CP children in 2019 have similar results to CE1 children in 2020 which can be explained with school closure due to COVID. The results in 2021 are more in line with what could be expected with students in CE1 performing better than CP children (even though the results are still quite low compared to what could be expected of children after 3 years of school). There is an important increase in the mean scores between 2020 and 2021 in both languages (18 words in CP, 27 words in CE1 in French and 21 words in CP and 32 words in CE1 in Hausa in 2021 compared to about 10 words in 2020 in both languages and levels). When looking at the repartition however, we can see some very high performing students pulling the average scores up. The median scores are still slightly higher than in 2020, especially in CE1.

The % of children scoring zero is still very high for the level with 7% to 10% of children not being able to recognise one familiar word in Hausa and French respectively in CP. There is a similar tendency for girls to have average scores slightly lower than boys in CP and higher in CE1 but this is still not significant.

3.3 Invented Word Reading

This sub-task assesses pupils' skill at applying letter-sound knowledge to decode unfamiliar words. To ensure that pupils are applying their knowledge of the relationships between sounds and symbols rather than reading words from memory, pupils are asked to read a chart of 50 pronounceable made-up words (invented or nonsense words) arranged in ten rows of five words each. Pupils are asked to correctly sound out as many non-words as they can within one minute.

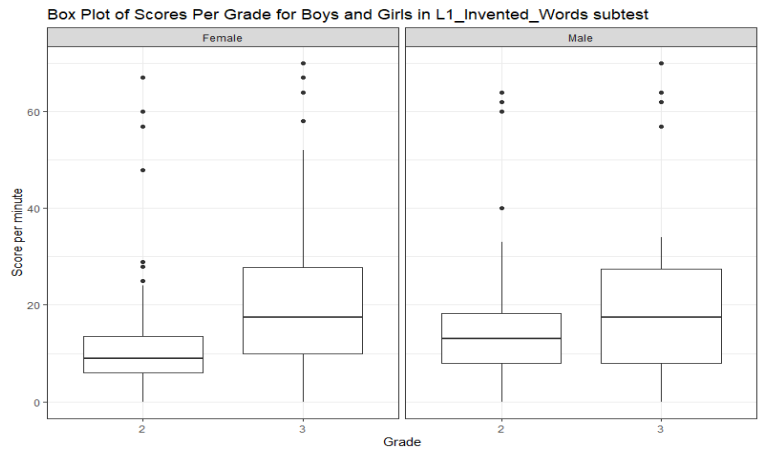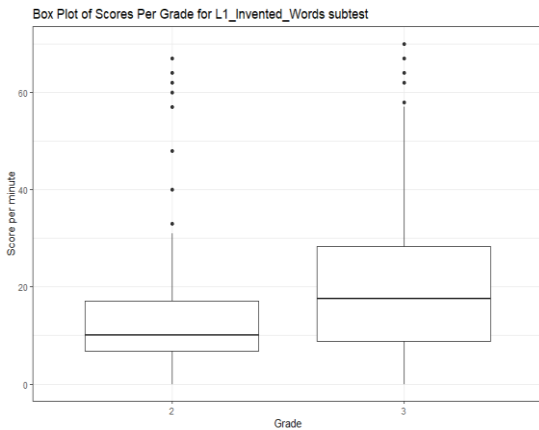### Results Summary- Invented Word Reading

| | CP | | | | | | CE1 | | | | | |
| | French | | | Hausa | | | French | | | Hausa | | |
	Male	Female	Overall	Male	Female	Overall	Male	Female	Overall	Male	Female	Overall
Min.	0	0	0	0	0	0	0	0	0	0	0	0
1st Qu.	8	6	6.8	4	3	3	8	10	8.8	7	10	7.8
Median	13	9	10	13	8	10	17.5	17.5	17.5	15	15.5	15
Mean	16.2	12.9	14.6	16.9	13.1	15	19.8	23.9	21.3	19.9	26.1	22.2
3rd Qu.	18.2	13.5	17	20.2	15	17.5	27.5	27.8	28.2	24.8	47.2	26
Max.	64	67	67	67	120	120	70	70	70	68	75	75
% zero	9.4	11.7	10.5	14.1	15.3	14.6	4.5	5.3	4.8	6.1	5.3	5.8

Mean Scores with Confidence Intervals - Invented Word Reading

| | CP | | | | | | CE1 | | | | | |
| | French | | | Hausa | | | French | | | Hausa | | |
	Lower CI	Mean	Higher CI	Lower CI	Mean	Higher CI	Lower CI	Mean	Higher CI	Lower CI	Mean	Higher CI
Male	12.6	16.2	19.9	12.4	16.9	21.3	16.1	19.8	23.6	15.4	19.9	24.5
Female	9.3	12.9	16.5	8.1	13.1	18	17.4	23.9	30.4	18.6	26.1	33.5
Overall	12	14.6	17.2	11.7	15	18.4	18	21.3	24.7	18.2	22.2	26.2

Boxplot Graphs- Invented Word Reading
French

Hausa

Comparison over time
French

Invented Words % Zero Scores French

Invented Words Mean Scores French
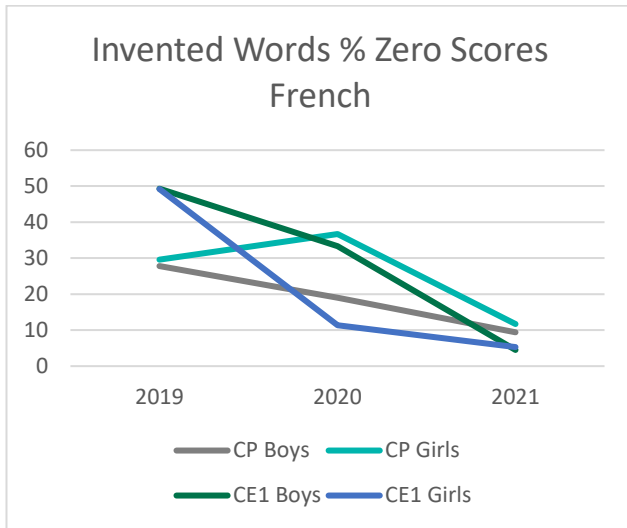

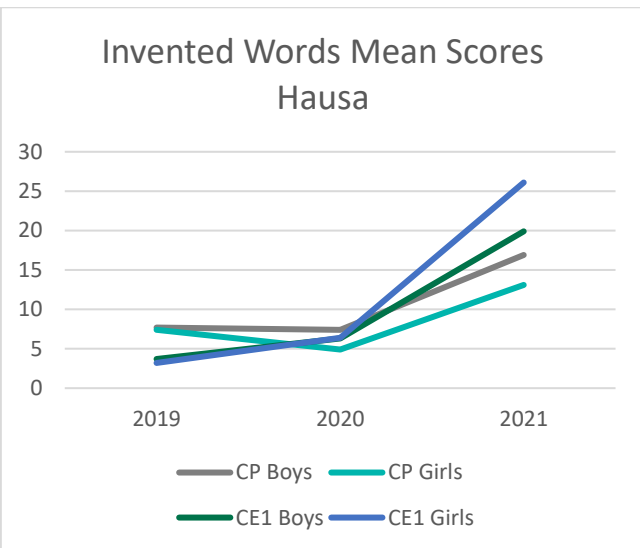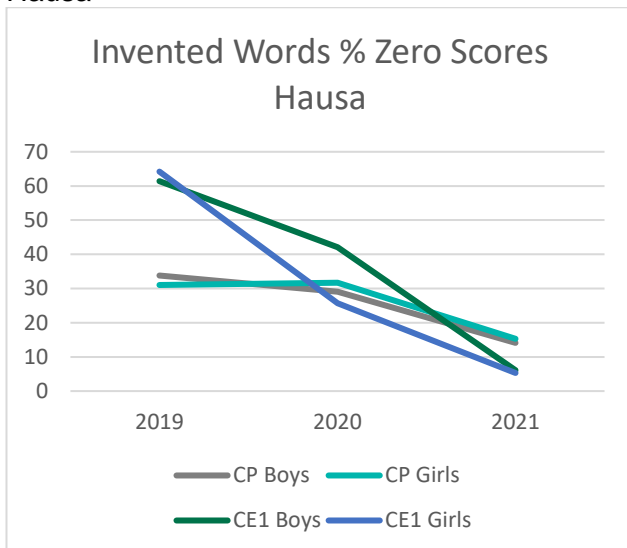Hausa

Invented Words % Zero Scores Hausa
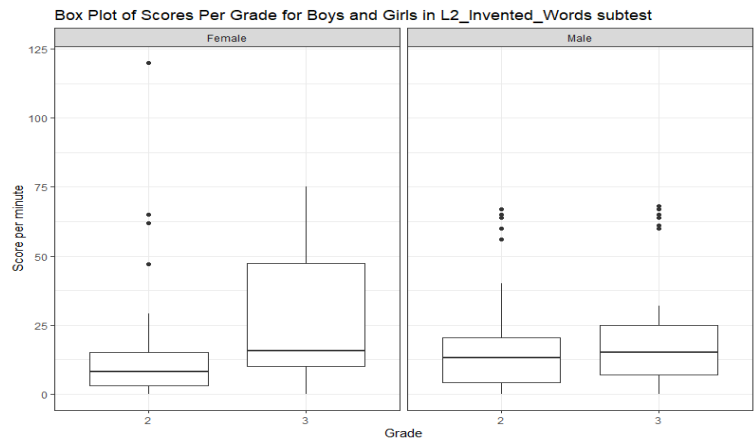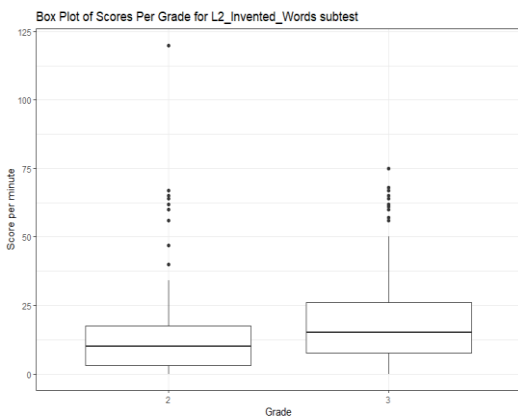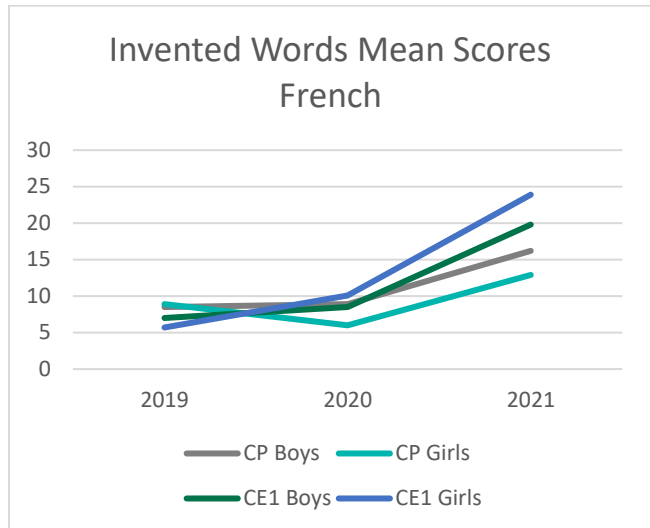
Invented Words Mean Scores Hausa

Narrative- Invented Word Reading

As in the previous subtasks, a similar trend is observed over time both in French and Hausa. There is a decrease of the % of zero scores for both level compared to the previous year. In 2020, there were 27% and 25% of students not able to decode one word in French in CP and CE1 respectively, there are 11% and 5% in 2021. That score was 30% and 36% in Hausa in 2020 for CP and CE1 and is now down to 15% and 6%.

There is also an increase in the median scores, in both languages for both levels between 2020 and 2021 (we consider the median score here as there are still a few high performing students pulling the average scores up). In CP, half of the students could decode up to 10 French and Hausa words correctly in one minute, 17.5 words in CE1 for French and 15 words for Hausa. This is higher than last year (4 words in Hausa and from 7.5 to 9 words in French) but it still shows that after 3 full years of school, an important proportion of the children have not developed automaticity to decode.

As in the other subtasks we observe the same tendency for boys and girls with boys having slightly better average in CP and girls higher in CE1. As observed previously it is not significant but it is an interesting trend that has been observed in last year's results already. An assumption was made last year that the lowest performing girls might drop out after CP but looking at the enrolment data for 2021 it does not seem to be the case. Further classroom observations will be carried out to try to understand this trend.

3.4 Connected-Text Oral Reading (Fluency)

This subtask assesses pupils' fluency in reading an appropriately levelled passage of text aloud. Generally these stories follow similar formats; they have a problem, a climax, and a resolution. The story is presented in simple font on a large laminated page for the child to hold and read aloud. Before starting, each pupil is instructed to pay attention to the story as they read because he or she will be asked questions about the story after finishing. The oral fluency is the number of correct words read per minute.

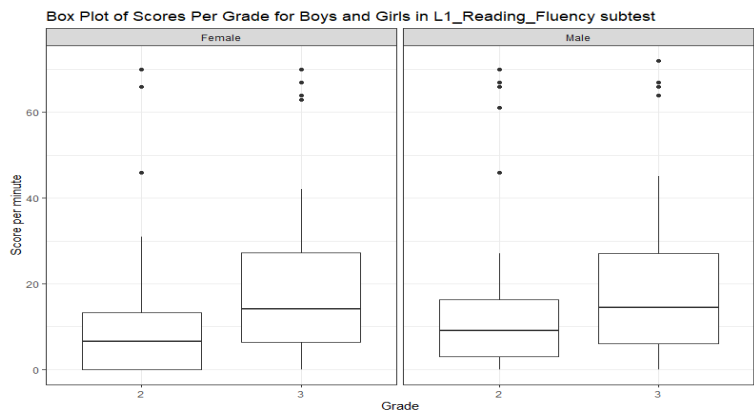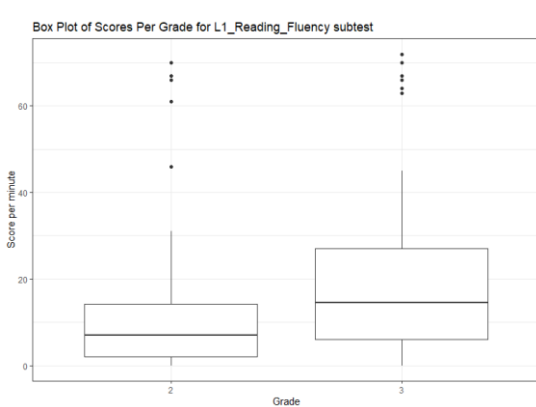### Results Summary- Connected-Text Oral Reading (Fluency)

| | CP | | | | | | CE1 | | | | | |
| | French | | | Hausa | | | French | | | Hausa | | |
	Male	Female	Overall	Male	Female	Overall	Male	Female	Overall	Male	Female	Overall
Min.	0	0	0	0	0	0	0	0	0	0	0	0
1st Qu.	3	0	2	3	0	1	6	6.2	6	4	5	4
Median	9	6.5	7	10.5	5	6	14.5	14	14.5	16	16.5	16
Mean	12.9	11.1	12	17.4	11	14.3	18.2	22	19.6	18.4	25.3	20.9
3rd Qu.	16.2	13.2	14.2	17	14	16	27	27.2	27	24	30.2	25
Max.	70	70	70	82	78	82	72	70	72	76	78	78
% zero	15.6	26.7	21	17.2	28.8	22.8	10.6	2.6	7.7	12.1	15.8	13.5

Mean Scores with Confidence Intervals- Connected-Text Oral Reading (Fluency)

| | CP | | | | | | CE1 | | | | | |
| | French | | | Hausa | | | French | | | Hausa | | |
	Lower CI	Mean	Higher CI	Lower CI	Mean	Higher CI	Lower CI	Mean	Higher CI	Lower CI	Mean	Higher CI
Male	9	12.9	16.8	11.8	17.4	23.1	14.1	18.2	22.4	13.9	18.4	23
Female	7.1	11.1	15.1	6.6	11	15.4	15.1	22	29	16.7	25.3	33.9
Overall	9.2	12	14.8	10.7	14.3	18	16	19.6	23.3	16.6	20.9	25.2

Boxplot Graphs- Connected-Text Oral Reading (Fluency)

French

Hausa

Comparison over time
French

Reading Fluency % Zero Scores French

Reading Fluency Mean Scores French

Hausa

Reading Fluency % Zero Scores Hausa
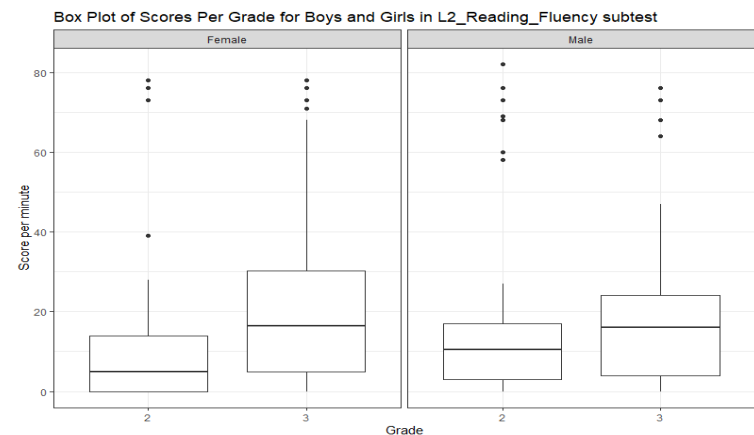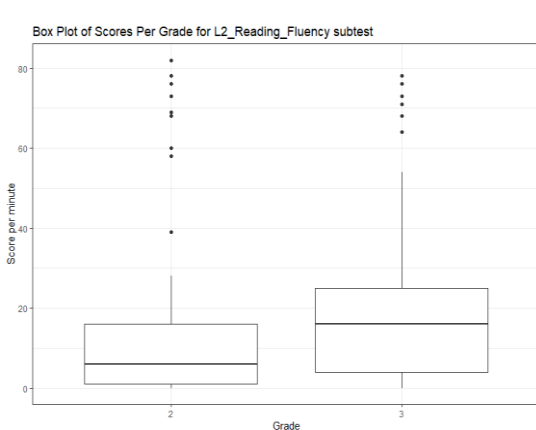
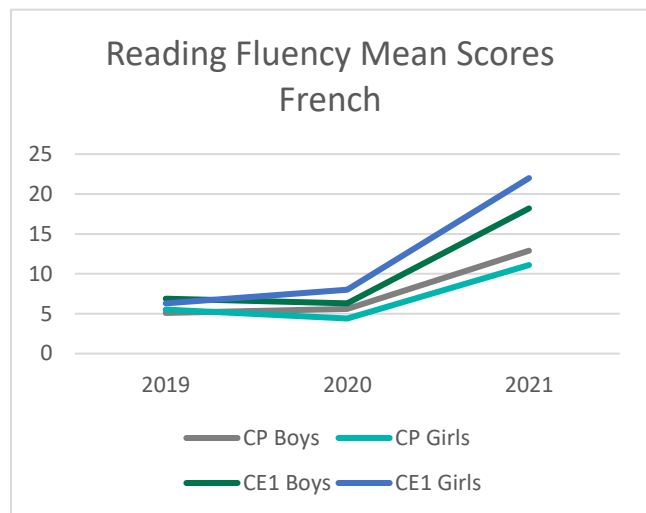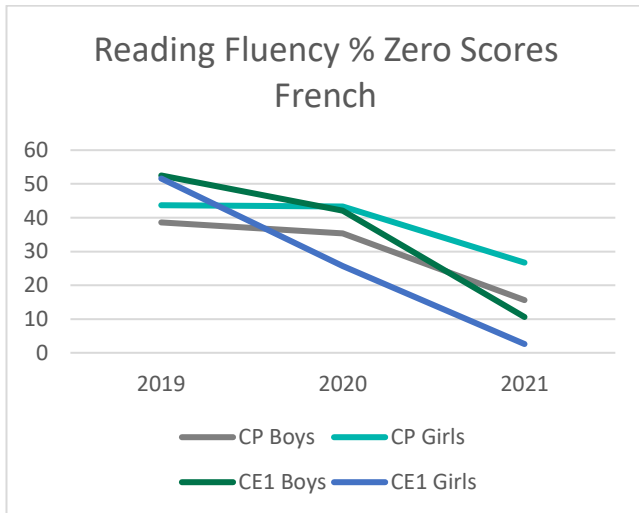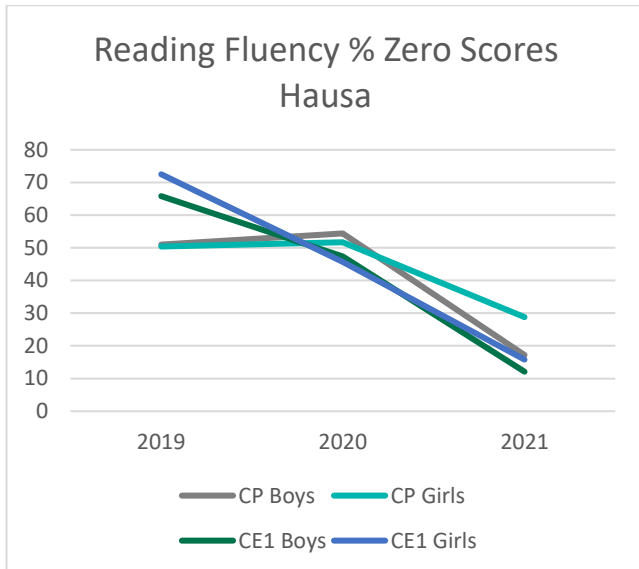Reading Fluency Mean Scores Hausa
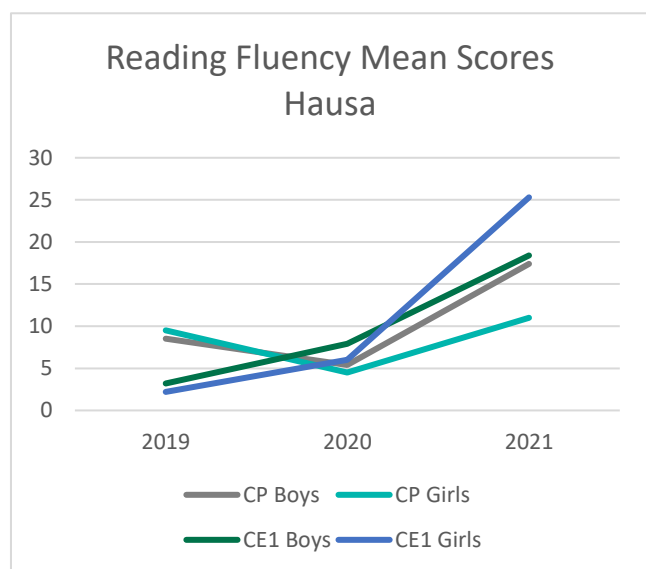
Narrative- Connected-Text Oral Reading (Fluency)

As in all the previous subtasks, a similar trend is observed over time both in French and Hausa. There is a decrease of the % of zero scores for both level compared to the previous years. In 2020, there were 39% and 36% of students not able to read one word of the text in French in CP and CE1 respectively, there are 21% and 8% in 2021. That score was 53% and 47% in Hausa in 2020 for CP and CE1 and is now down to 28% and 13%. This is an important improvement but the number of zero scores are still relatively high for the task and the number of years that children have been to school. It is also interesting to note that there are more children unable to recognise one word in Hausa in CP compared to French. This is unexpected as children learn first in Hausa and start transitioning to French from the 2nd year so this could show lower proficiency of teachers in Hausa or less exposure to writing, making children improve in French much faster than in Hausa even though they have had less year of schooling in the language.

There is also an increase in the median scores between 2020 and 2021 (we consider the median score here as there are still a few high performing students pulling the average scores up). In CP, half of the students could read up to 12 French words correctly in a simple text in one minute, 14 words in Hausa. This scores is of 20 words in CE1 for French and 21 words for Hausa. This is also higher than last year (0 and 2.5 words in Hausa; 2 and 4 words in French in CP and CE1 respectively). Considering that students in CP last year are the same cohort of students in CE1 this year this is an important achievement.

As in the previous subtask, we observe a similar trend for the difference of scores between boys and girls. Girls score slightly lower mean score in CP and a higher mean score in CE1 (but still not significant when looking at the confidence intervals).

% reaching minimum standards (45cwpm) in Connected Text Oral Reading (Fluency)

| | CP | | | | | | CE1 | | | | | |
| | French | | | Hausa | | | French | | | Hausa | | |
	Lower CI	%	Higher CI	Lower CI	%	Higher CI	Lower CI	%	Higher CI	Lower CI	%	Higher CI
% male	5.9	7.8	9.7	10.6	14.1	17.5	6.9	9.1	11.3	6.9	9.1	11.3
% female	5	6.7	8.4	3.8	5.1	6.4	10.8	15.8	20.8	16.2	23.7	31.2
Overall %	6	7.3	8.5	8	9.8	11.5	9.3	11.5	13.8	11.7	14.4	17.2

Comparison over time

Reading Fluency % 45cwpm French

Reading Fluency % 45cwpm Hausa
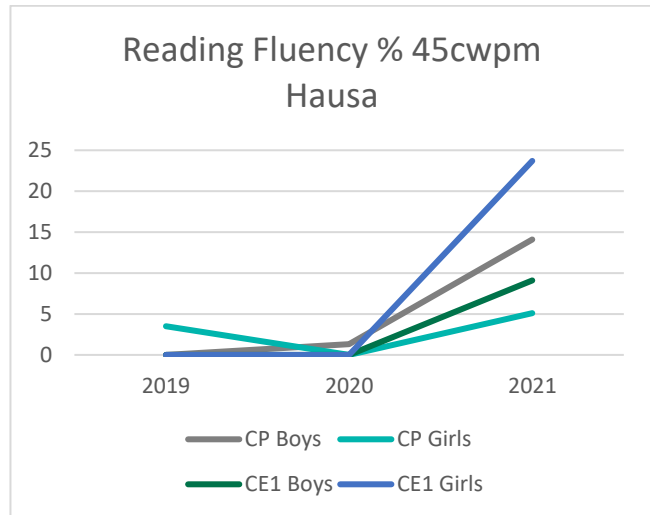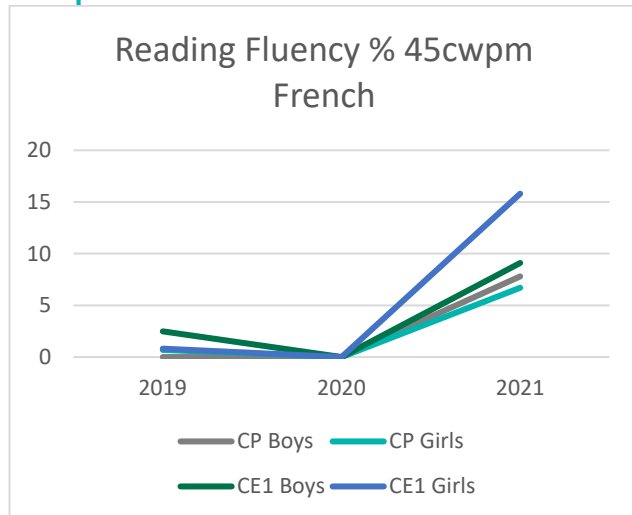
With regard to percentage of students meeting the minimum fluency benchmark, 7.8% of boys and 6.7% of girls met the fluency benchmark of 45 correct words per minute in French in CP. In CE1 there are 9.1% of boys and 15.8% of boys. So overall in CP, 7.3% of children in CP and 14.4% of children in CE1 could read with fluency in French.

In Hausa, 14.1% of boys and 5.1% of girls in CP could read fluently and 9.1% of boys and 23.7% of girls in CE1. Overall, this is 9.8% of children in CP and 14.4% of girls in CE1 who could read Hausa with fluency. Although this is an important improvement compared to last year where the scores were 0, we can see from the boxplot and the repartition that it is mainly due to a few children performing extremely well. While those children could read up to 82 words per minute, 75% of the children in CE1 could not read more than 27 or 25 words in French and Hausa indicating that although children are beginning to read words, the majority of them is not developing the fluency required for meaningful reading (which is to be expected considering the results for the other subtasks).

There is an important difference here again for girls and boys in CP and CE1 but once again considering the smaller sample size of girls in CE1, this percentage could represent only a couple of students.

3.5 Connected-Text Comprehension

This subtest assesses the child's ability to understand what they have read by answering up to five comprehension questions based on the previous passage they read. The first comprehension questions are literal (the answers are found directly in the text) and spread evenly throughout the paragraph. The last question is inferential, asking the pupil to interpret clues in the text and form an opinion about how the protagonist feels or sees the situation. The score is provided as the proportion of questions answered correctly when the questions were asked (the child needs to have read enough text to be able to answer the questions).

Scores for Connected Text Comprehension (% of questions correct from questions asked)

	CP		CE1	
	French	Hausa	French	Hausa
Male	20.2	18.1	27.2	21.6
Female	14.4	8.3	30.2	24.6
Overall	17.6	13.4	28.3	22.7
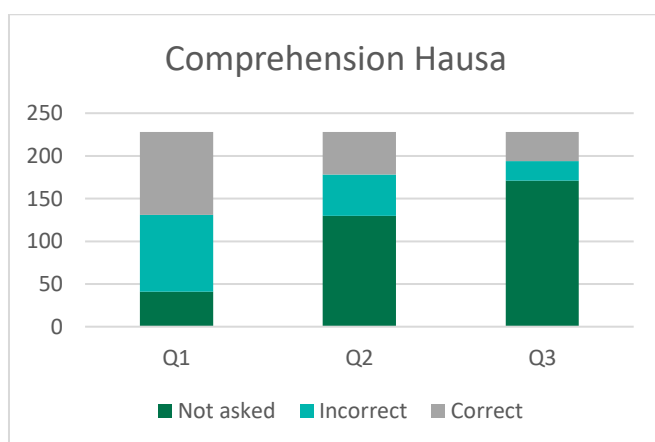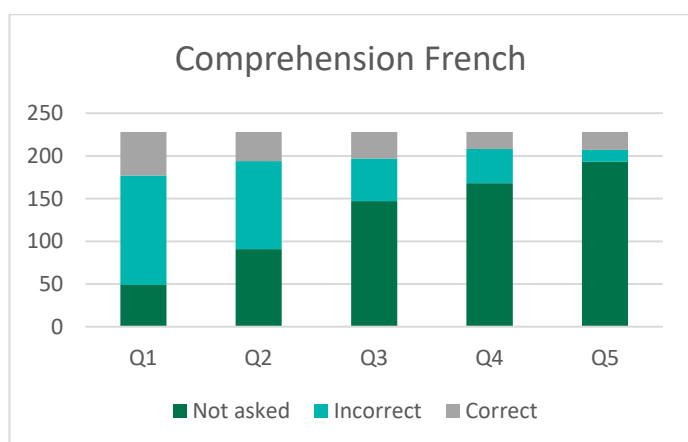
Narrative- Connected Text Comprehension

The questions are asked to the students according to how much the student has been able to read on the previous reading text subtask. For French, the 5 questions are asked after 8, 13, 19, 22 and 32 words. This means that a child who has read 10 words would only be asked the first question. In Hausa there are only 3 questions that are asked after 3, 17 and 23 words.

From this data, we can see for Hausa that while many children were able to respond correctly to the first question, the number of children who have reached 17 words is much smaller and the amount of children able to answer correctly is even less (34 correct answers out of 57 for the 3rd question).

In French we see a similar trend throughout the questions with less children reaching the question and less of those reaching it being able to answer correctly. For the last 2 questions, only 20 and 21 children have been able to respond correctly. Out of those, about 10 children have responded to all questions correctly.

If we consider all 228 children that have been assessed, this is a very small number that reflects the amount of words that children can read and the speed they can read at. Reading slowly means reading without automaticity and fluency and makes it hard to remember and understand what was read. It also shows for the first question that out of the 179 children who read more than 8 words, only 51 have been able to respond correctly to a simple question (for the text "My family. Dad and Sani go to the field" the question is "where do dad and Sani go?").

These low comprehension results are in line with previous subtasks, indicating that children are not developing the lower order skills with enough speed and automaticity to be able to translate this to the higher order skills of fluency and understanding.

4. Conclusion

The results for all subtasks over the past 3 years revealed significant improvements in students' learning and in low and higher order skills, especially with a year spent out of school due to COVID related school closures between 2019 and 2020. General increase in proficiency for both lower and higher order skills (from 2019 to 2020 but especially from 2020 to 2021) are still showing overall reductions in the proportion of children unable to identify a single letter sound or word and overall increase in mean and median scores.

With these improvements in mind, it is still essential to note that the results remain lower than what is expected after finishing 2 and 3 years of school. Proficiency diminishes as pupils move to more complex higher order skills, with fluency and comprehension being negligible in both languages at both CP and CE1 levels for the majority of children.

The results underline the importance to continue the intensive literacy-focused education programme for schools in the Tahoua region, with some improvements seen across the CP and CE1 but still significantly lower results than desired for quality education, especially for the lower performing students. While this assessment focused on only one region, the support will need to continue, especially in those regions that are more prone to insecurity and school closures. It is imperative that teachers continue to be provided with appropriate and ongoing support in Hausa since all children assessed declared speaking Hausa and even though the results in both French and Hausa increased since last year, the difference on zero scores in Hausa and French for CP is not in line with what would be expected for children who had only mother tongue literacy for the first year. Strengthening the lower order skills in Hausa in the first year will, in the long term, make it easier for children to read in another language and this step is not clearly appearing in the results.

As some children appear to have excellent results, we still see a majority of children continuing to score zero or to have much lower scores across the higher level subtasks. A gender gap and trend is also observed between CP and CE1 throughout all the subtasks (girls were performing slightly less well than boys in CP and then better in CE1). While this is not significant considering the confidence interval, it is a trend that was observed in 2020 and in 2021. Last year the assumption was made that the girls performing less had been dropping out between CP and CE1 but this has not been observed in the enrolment data of 2021. It is however clear that there were less girls present than boys on the assessment days (smaller sample size) so it is recommended to monitor and try to understand these results.

5. Recommendations

- **Children to be more exposed to writing:** A majority of children still lack automaticity to recognise words. It is therefore recommended to increase the amount of exposure that children get to writing and to words they've learned. To do that, we need to ensure that teachers use the manuals as much as necessary and that children are also encouraged to use their manuals and take them at home. It can recommended for teachers to make the learning environment more conducive and enriching (for example posting words learned on the walls etc) in French and Hausa. We will also attempt to enrich the Hausa library to ensure children can have more exposure in mother tongue.

- **Inclusive Pedagogy:** It is imperative that teachers are provided with the appropriate skills to differentiate instruction and support all students, ensuring all children in class participate, even those preforming less sitting at the back. We will ensure responsive approaches are integrated into Continuous Teacher Professional Development so that they engage with all students, especially the most vulnerable that are being left behind to homogenously develop lower order skills in all grade levels and languages.

- **Gender sensitive monitoring and observation:** There is a need to continue to apply gender responsive approach to all teacher professional development with a particular focus on ensuring girls continue to receive the required support in the lower grades and boys continue to be supported in the highest grades. We will also be monitoring the attendance and observing the interaction in the classroom to try to understand those trends.

Son des lettres – Français

Exemples :　　r　　o

i	t	a	n	r	e	o	l	u	s

i　t　a　n　r　e　o　l　u　s

d　f　b　q　g　v　c　p　m　h

y　j　z　w　a　x　o　u　n　k

r　l　q　s　t　m　e　d　f　i

c　v　k　z　j　x　b　g　p　h

Mots inventes – Français

Exemples : **la** **papa**

ou	la	de	il	sa
je	ai	tu	du	le
élu	poil	sur	bol	ton
ami	dur	mur	une	été
pure	sein	mari	sain	vélo
vase	père	visa	mare	vise
jeudi	balle	livre	lundi	souris
lieu	marin	tasse	grise	ail
voisin	maitre	battre	arbre	sortir
crevé	vendre	souris	broyer	cahier

Mots inventes – Français

Exemples : **bi**   **tok**

zi	go	uv	vi	ax
wa	co	do	ké	ha
quo	vaf	xer	pit	ter
tok	yar	her	zèb	dou
toxi	kart	doul	goze	motu
padi	tife	mira	faze	béli
leuze	parika	vrase	fèze	crapi
cèdri	quizo	balba	pozu	clami
crome	cacati	sourti	gama	nuilo
barka	bizame	momi	zélian	texi

Ma famille

Mon papa va au champ avec Sani. Ils vont cultiver le champ. Maman prépare le manger pour midi. Ma sœur Amina aide maman a la cuisine.

Moi je vais jouer au ballon. Mes autres frères vont au marché.

Ils ont une petite boutique. Ils vendent du mil, du maïs et des patates. Hier ils ont gagné beaucoup d'argent.

Son des lettres - Hausa

Misalai :   a   m

F   ƙ   g   k   T   s   Ƙ   ɓ   g   Ɗ

a   s   K   o   D   C   u   ɓ   m   P

C   A   Z   y   w   Ɓ   R   N   j   m

D   L   U   F   A   ɗ   ƴ   O   R   T

M   z   Ƙ   z

Mots Familiers - Hausa

Misalai : **ɗa**　　**ƙato**

ɓa	ke	lu	ta	mo
ai	ita	namu	shi	ga
ƙi	au	ge	ɗa	a'a
keke	ƙarami	wasali	bisa	ciki
ɓarawo	gona	ƙwallo	wata	karatu
ƙofa	ice	talata	tebur	littafi
kyauta	burodi	namu	sabo	ɗan
akuya	juma'a	ƴar	inna	baba
mussa	makaranta	ci	babba	gani
duniya	tafiya	uku	aiki	gwamnati

Mots Familiers - Hausa

Misalai : **ɗol** **kut**

ɓil	daf	um	wi	bo
caci	ol	zol	ɗir	gra
foƙa	ola	nai	waudi	mijo
aiburi	doja'a	fulo	pekwa	kyago
rodi	kiƙya	tsadu	ƙwacau	gwapo
dangu	reka	ukwai	gyajau	ɓeda
zolu	baitsa	ha'a	tsaigo	jal
irabu	waco	cande	gondi	ifya
zogu	jiro	laigi	tsoɗa	ojau
ru	nigu	ɓaca	kyauzu	shuzai

Damana uwar albarka

Yin noma da galmar shanu yana da amfani. Yana sanya wuri mai zafi ya ƙara sanyi. Saboda ruwa suna ratsa ƙasa sosai.

Mu kula da sanya takin gargajiya da takin zamani.