

2019 Phonics Screening Exercise Kano State Evaluation Report



Introduction

The Jolly Phonics Project is an English early grade literacy project that has been scaled to every state in Nigeria under a partnership between the Universal Basic Education Commission (UBEC) and the Nigerian charity Universal Learning Solutions Initiative (ULSI), which is supported by the UK-based non-profit organisation Universal Learning Solutions. As of the end of 2019, over 100,000 Early Years to Primary 3 government school teachers in Nigeria have been trained, resourced and supported to use Jolly Phonics under this partnership, potentially benefitting around 8 million pupils. The project has been mostly funded by donations from the publisher of Jolly Phonics, Jolly Learning, and through the UBEC Teacher Professional Development (TPD) fund. Recently, the project has also been incorporated into the World Bank funded Global Partnership for Education (GPE) and the Better Education Service Delivery For All (BESDA) programme.

The project aims to rapidly increase pupils' initial literacy skills through the teaching of synthetic phonics via the Jolly Phonics programme. Jolly Phonics teaches this proven method through child-centred, fun and interactive strategies, such as stories, songs, actions and games. The Jolly Phonics materials for teachers and pupils were originally donated by the publishers and now are being provided by UBEC and state governments through a free licence that the company has donated to the Nigerian government. Because the materials are black and white, they are very cheap and easy to print, meaning that their use in classrooms is sustainable. In addition to training and materials, ULSI works to ensure that teachers have the necessary follow-up support through a range of strategies, such as coaching visits to schools from a dedicated team and trained officials, cluster meetings, smartphone applications, etc.

Monitoring and evaluation have always been essential components of our projects. We collect a wide range of monitoring data during all of our activities and during visits to schools. We further evaluate the impact of the project on pupils' literacy skills through partner academics, from state academic institutions, conducting pupil assessments in focus schools each year. There are between 6 and 20 focus schools in each state. Our results consistently show a positive impact on pupils' learning, which corresponds with reports from classroom observations. Although we are confident that these positive results are generally representative of the wider impact, our small sample sizes, potential bias amongst academics who are also members of our broader monitoring teams, and varying capacities amongst assessors, means that the data that we do have is not always seen as being entirely reliable. This is why we wanted to conduct an evaluation of the impact of Jolly Phonics that could be seen

as presenting a reliable and accurate representation of the impact of Jolly Phonics on pupils' literacy skills, which is what we believe that this report provides.

In 2018, ULSI also piloted the administering of the UK Government's "Phonics Screening Check" in 80 schools in Kano State. The Phonics Screening Check is designed to quickly establish whether a pupil has acquired essential phonics skills that provide the foundation for becoming a fluent reader who can effectively read to learn in English. It provides 40 decodable words that the pupils have to read one-by-one, with 20 being real decodable words, such as "pan", and 20 being invented decodable words, such as "fis". ULSI also added a simple letter sounds test to this check, in order to provide more information on a pupil's phonics ability. 10 Government School Support Officers from Kano State were trained in how to conduct the check using a smartphone application and then each conducted assessments with pupils in 8 schools. This allowed for the quick, easy and cheap gathering of data for almost 3,000 pupils in 80 schools, which demonstrated a very positive impact for the Jolly Phonics Project when Primary 1 Jolly Phonics pupils results were compared with the non-Jolly Phonics Primary 1 Pupils in control schools and with non-Jolly Phonics Primary 2 pupils in the same schools. The feedback from these 10 officials was extremely positive, with all recommending that the Phonics Screening Check should be scaled across the whole country as a way to gather broader impact and general pupil literacy data. In June 2019, our project teams from all states in Nigeria, and officials in some states, administered the Phonics Screening Check with over 60,000 Nigerian pupils.

This report presents an evaluation of the impact of the Jolly Phonics Project on pupils' literacy skills in Kano State. This evaluation is based on the results of the Phonics Screening Check collected from 5800 Primary 1 and 2 pupils in 332 schools at the end of the school year in June 2019. It also evaluates the impact of the Education Sector Support Programme in Nigeria (ESSPIN), and how this has interacted with Jolly Phonics in Kano State in the strive to improve pupils' literacy skills.

In order to ensure the reliability and academic rigour of this report, an external evaluation of the assessment process was carried out by academics from the well-respected Nigeria Centre for Reading Research and Development Education, Bayero University Kano. Their findings are detailed in this report. Moreover, the data was analysed by top academics from Newcastle University in the UK. We believe that these measures have ensured that the results presented in this report provide a reliable and accurate representation of the impact of Jolly Phonics on pupils literacy skills in Kano State.

The Kano State Jolly Phonics Project

In Kano State, the Jolly Phonics Project is being implemented by ULSI in partnership with both the Kano State Universal Basic Education Board (SUBEB), under the TPD funding element, and with the Kano State Nigeria Partnership for Education Project (NIPEP) Committee, which is the State's GPE representative body situated at the Ministry of Education.

The project was initiated in October 2017, and by June 2019, when the Phonics Screening Check was carried out, the following trainings had taken place as part of the Jolly Phonics Project in Kano State:

Table x – Breakdown of the Jolly Phonics Training that had taken place in Kano State before the Phonics Screening Check

Date	Funding Source	Type of Participant	No. of Participants
October 2017	UBEC TPD	Primary One	538
		Head Teacher	264
		Officials	206
December 2018	GPE	Primary One	975
		Head Teacher	476
		Officials Refresher	88
March 2019	UBEC TPD	Primary Two	528
		Head Teacher	264
		Officials Refresher	140
		Officials	24
Total Primary 1			1,513
Total Primary 2			528
Total Heads			740
Total Officials			288

In July 2019, training was provided to a further 1,840 Primary 1 teachers and 858 Primary 2 teachers, meaning that 5,743 teachers by the end of 2019 had been trained in total in Kano State. The State Government in Kano State has been very supportive of the Jolly Phonics Project, which is why we have been able to reach such a high number of teachers in such a short period of time.

Table x shows that the majority of the teachers had not yet been using Jolly Phonics for a full year when the Phonics Screening Check was carried out. 64% of the Primary 1 teachers had been implementing Jolly Phonics for just 2 terms, from January 2019, and 100% of the Primary 2 teachers had only been implementing Jolly Phonics for 1 term, from April 2019. This means that the results presented in this report are likely to not be as good as they would have been if the teachers had been implementing Jolly Phonics for a full school year, which will be highlighted again in the results section below.

Table x also shows that a high number of officials had been trained, and that many of these had taken part in several trainings. The Kano State officials are very competent in their monitoring of Jolly Phonics and mentoring of teachers, as well as their use of the Jolly Monitor App, which was used to collect data in this Phonics Screening Exercise. This is why we chose Kano State for this evaluation, which is explained more in the following section.



Why Did We Choose Kano State?

In May 2018, Universal Learning Solutions, in partnership with Kano SUBEB, conducted a phonics screening pilot study in Kano State with 10 School Support Officers (SSOs). Kano State was chosen as the pilot state because we had already established an excellent working relationship with many SSOs, who had been monitoring and mentoring teachers in Jolly Phonics very effectively. For this pilot study, we trained these government officials on how to conduct the Phonics Screening Check using the new Jolly Monitor App. The pilot was a huge success, with all officials reporting that they found both the assessment too and the app very easy to use, and they all recommended that it be extended in 2019 to reach as many schools as possible in Kano State, as a way to understand levels of literacy learning in Kano's schools.

Building upon the success of this pilot, in October 2018, Universal Learning Solutions, in partnership with Kano SUBEB, trained 88 SSOs from Kano State on how to use the Jolly Monitor App to monitor and mentor teachers using Jolly Phonics. This was the first state within which the app was provided to officials to use as part of the Jolly



Picture taken at the Jolly Monitor App Training in October 2018

Phonics Project and, indeed, because the official launch of the new app. The training was again a huge success, with almost all SSOs going away and using the Jolly Monitor App on a regular basis during their Jolly Phonics visits to schools, and reporting that they found it easy to use.

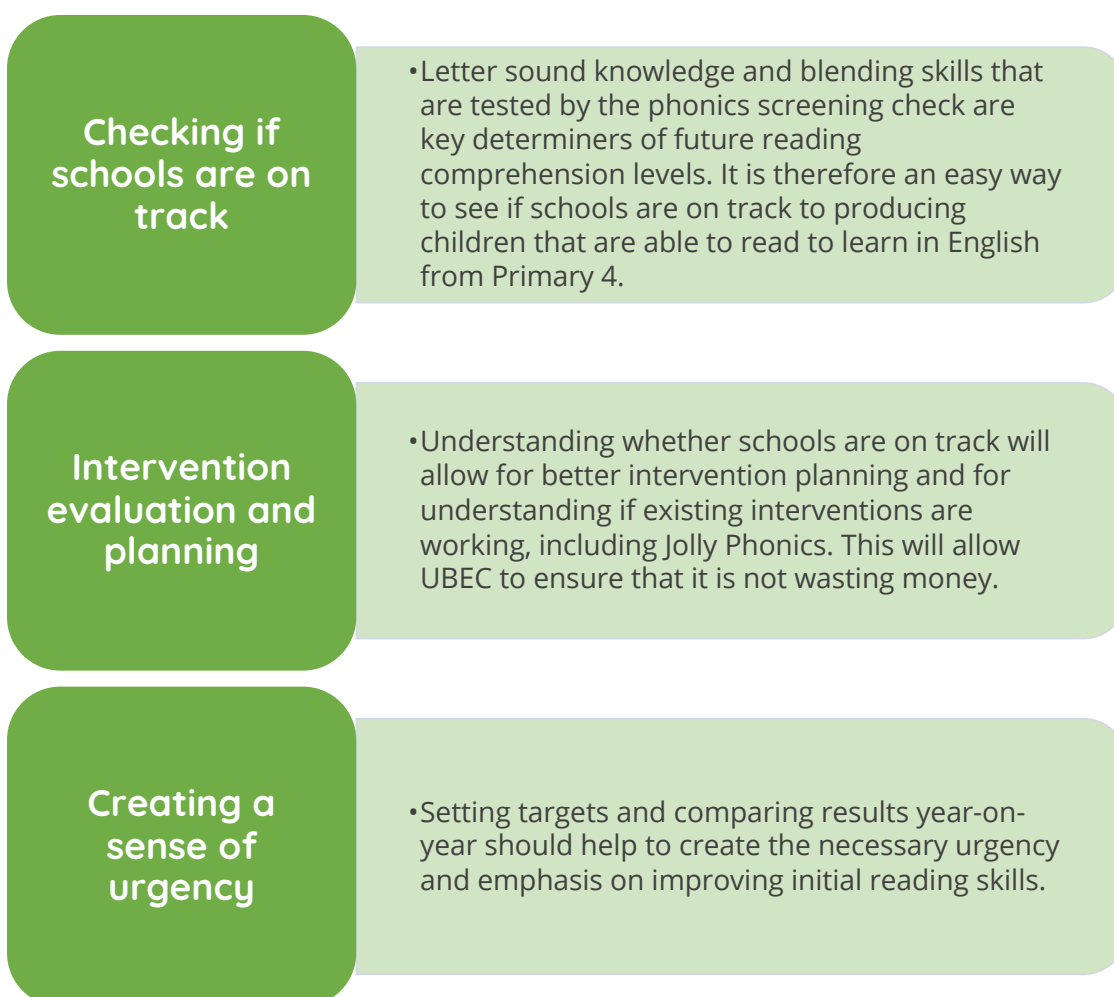
This was why we chose Kano as the state within which to undertake this intensive Phonics Screening Exercise; because the officials had already proved themselves as being very capable with the tool that would be used to conduct the assessments.

What is a Phonics Screening Exercise?

The Phonics Screening Check is a way for teachers and the government to ensure that children are making sufficient progress with their phonics skills to read words and that they are on track to become fluent readers who can enjoy reading for learning and for pleasure. The Phonics Screening Check was developed by the UK government, and every child in England and Wales is now assessed at the end of Primary 1 using this test. A phonics screening exercise involves testing Primary 1, 2 and 3 pupils on their letter sound knowledge and blending skills, which are key initial literacy skills. The specific tests are described more below.

Why Undertake a Phonics Screening Exercise?

There are many reasons why this check is beneficial, including:



The Tests

The Jolly Monitor App

The Selection and Training of Assessors (SSOs)

Although we trained 88 officials in the Jolly Monitor App, we only choose 40 officials to be part of this intensive phonics screening exercise. For cost reasons, we decided to select one official from each Local Government Area (LGA), with the criteria being that they had to have been competently and regularly using the Jolly Monitor App to monitor and mentor teachers. We were able to identify such individuals in 40 of the 44 LGAs. The Jolly Phonics Project Coordinators then filled in the gaps in the remaining 4 LGAs to ensure that we had data from all 44 LGAs.

In early June 2019, Kano SUBEB hosted a training event for the selected assessors. This lasted for one full day and was delivered by Universal Learning Solutions. The assessors were walked through all of the assessment process, including how to randomly sample classes and pupils, how to ensure that pupils are comfortable and assessment environments are conducive, how to undertake the tests correctly, what the correct answers are on the tests, and more.



Pictures from the assessor training, June 2019

Some Feedback from Assessors on the Training...

The Selection of Schools

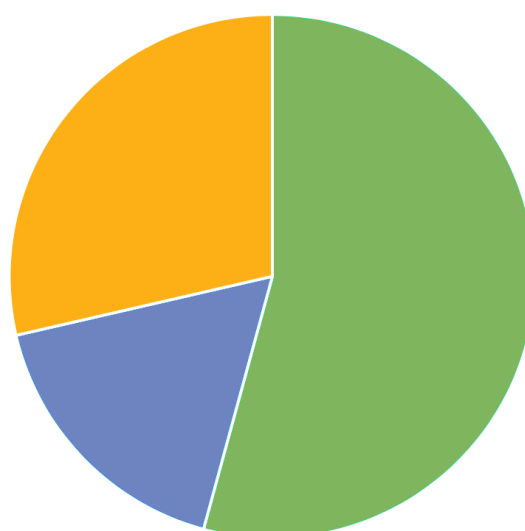
In order to ensure that the selection of schools was unbiased, we asked the external evaluators from the Nigeria Centre for Reading Research and Development Evaluation (see below) to randomly select 8 schools in each LGA from a list of schools that contained no further information about their performance level. They were told to choose 6 Jolly Phonics schools and 2 non-Jolly Phonics schools in each LGA, which was indicated on the list. In total, 352 schools were chosen, but only 332 took part of the exercise because the Project Coordinators were only able to visit 12 of the 32 schools in the 4 remaining LGAs. The split of Jolly Phonics and non-Jolly Phonics schools was 75% (250) and 24% (82) respectively.

332

**Schools
Sampled**

With 332 schools being part of the exercise, there was naturally a mix of school characteristics

within the sample, including schools from across urban, rural and semi-rural contexts, which is highlighted in Figure 1 below. This pie chart shows us that the majority of schools (54%) were located in rural contexts, which is not surprising given the rural nature of Kano State and the fact that schools were selected from all LGAs. This percentage was slightly higher in the non-Jolly Phonics schools (60%) than the Jolly Phonics schools (53%). Table 1 shows that the two groups were fairly evenly matched in terms of whether their school buildings and facilities were conducive enough for learning to take place, although the Jolly Phonics schools performed slightly better in both areas.



■ Rural (54.22%) ■ Semi Rural (17.17%) ■ Urban (28.61%)

Figure 1 – Location of Schools by Category

Table 1 – Comparison of Conduciveness for Learning

Sample Group	Building Conducive for Learning	Facilities Conducive for Learning
Non-Jolly Phonics	91%	93%
Jolly Phonics	97%	96%

The list of schools for each LGA was then provided to the relevant assessor, who made a plan of which day to visit each school over a two-week period. No schools were changed from the original selection, meaning that we can confidently say that the assessment schools were random and so an accurate representation of the broader performance of schools in Kano State.

The Selection of Pupils



Pictures showing the random sampling of pupils taking place

The Assessment Process



Pictures of pupils being assessed using the Jolly Monitor App

The Nigeria Centre for Reading Research and Development Evaluation



We really wanted to ensure that the data collected during this phonics screening exercise was reliable and so presented an unbiased and realistic reflection of the impact of Jolly Phonics in Kano State's schools. We therefore contracted academics from the Nigeria Centre for Reading Research and Development Education, which is supported by USAID and Florida State University, and is a well-respected educational research body throughout Nigeria, to undertake an external evaluation of the assessment process.

The evaluators – Umar Kabir and Bala Danyaro Aminu – attended the assessment training to observe it in action. At the end of the training, they interviewed and tested the assessors, in order to evaluate the extent to which they felt that the training had been successful in giving them the knowledge and skills to effectively carry out the phonics screening exercise.

Following the training, these evaluators randomly selected assessors to observe during the assessment process. They each chose 8 officials and 8 random schools that they were visiting, and then travelled to the schools within which they were conducting assessments on the allocated days to observe the process. During the day, they completed a general evaluation questionnaire about the process, and also a questionnaire relating to the assessment of each individual child.

Afterwards, they collated and analysed the data, and it was put together into an evaluation report, which can be found in Appendix 1.

To summarise their findings, both assessors felt that....

Data Cleaning

Data Analysis



Assessment Results

This section presents the key findings of the data analysis conducted by Prof. Pauline Dixon and Dr Stephen Humble from Newcastle University in the UK. The boxplots and tables have been taken directly from their report, and the other charts have been generated for clarity based on their data. Their full report can be found in Appendix 2. The results from the Letter Sounds Test are presented first, followed by the Word Reading Test.

Letter Sounds Test

The box plots below (Figures x and x) show that, on the Letter Sounds Test, in both Primary 1 and 2, those learning with Jolly Phonics are very much further ahead than those who are not learning with Jolly Phonics.

Also, carrying out independent samples t tests shows that there is a statistically significant difference between the test scores for those learning with Jolly Phonics and those not learning with Jolly Phonics for both Primary 1 and 2 (Table x).

Figure x then compares the mean scores for each group in each year and clearly shows just how far ahead the Jolly Phonics group were in terms of their mean letter sound knowledge, even with the outliers in the non-Jolly Phonics group.

Figure x – Pupils’ Letter Sound Test Scores in Primary 1

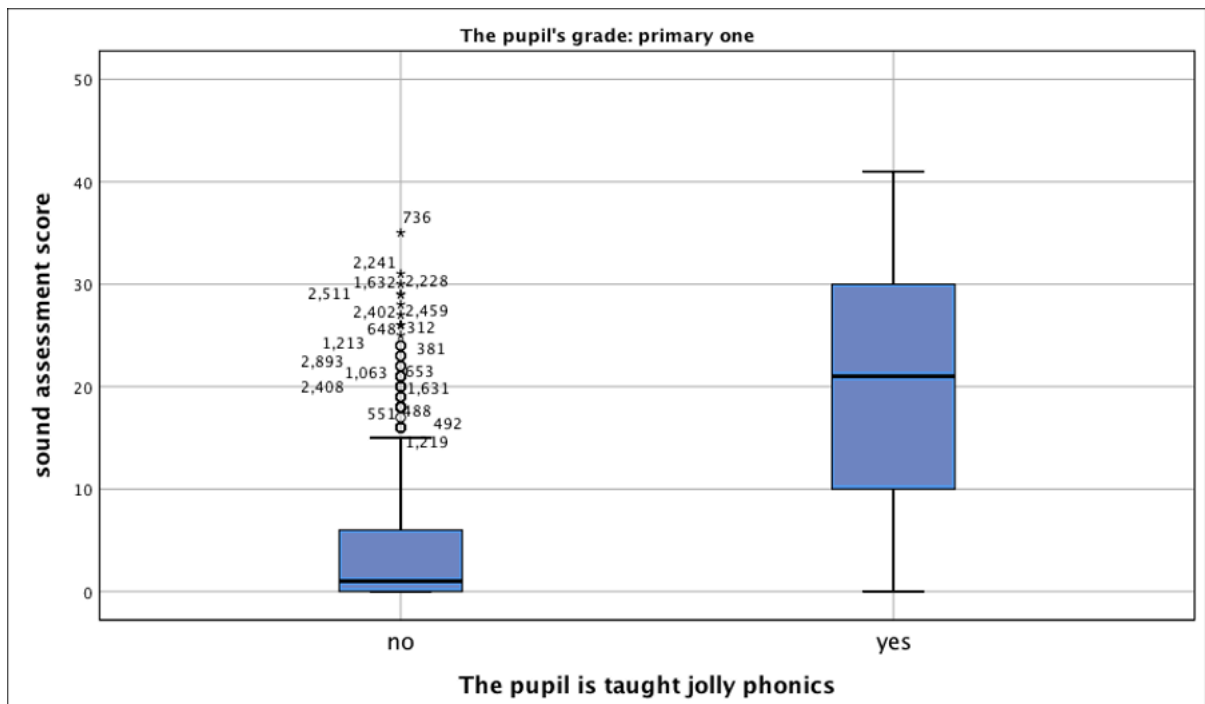


Figure x – Pupils’ Letter Sound Test Scores in Primary 2

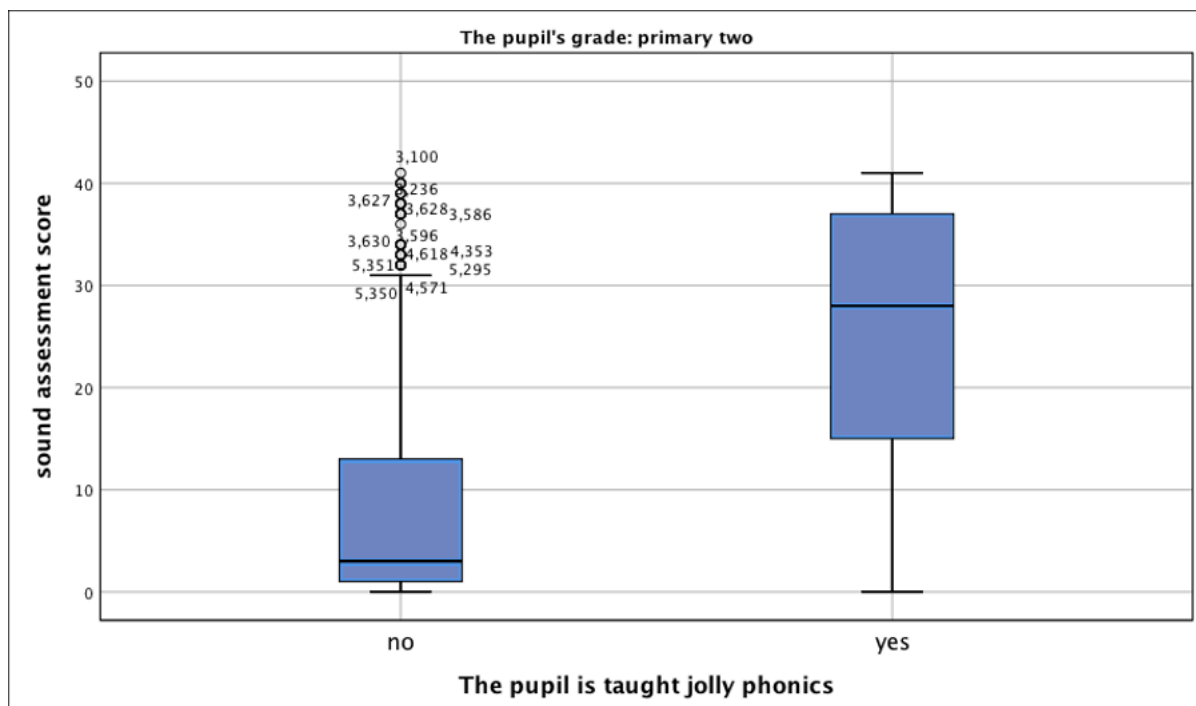


Table 2 - Independent samples t tests for Letter Sounds Test

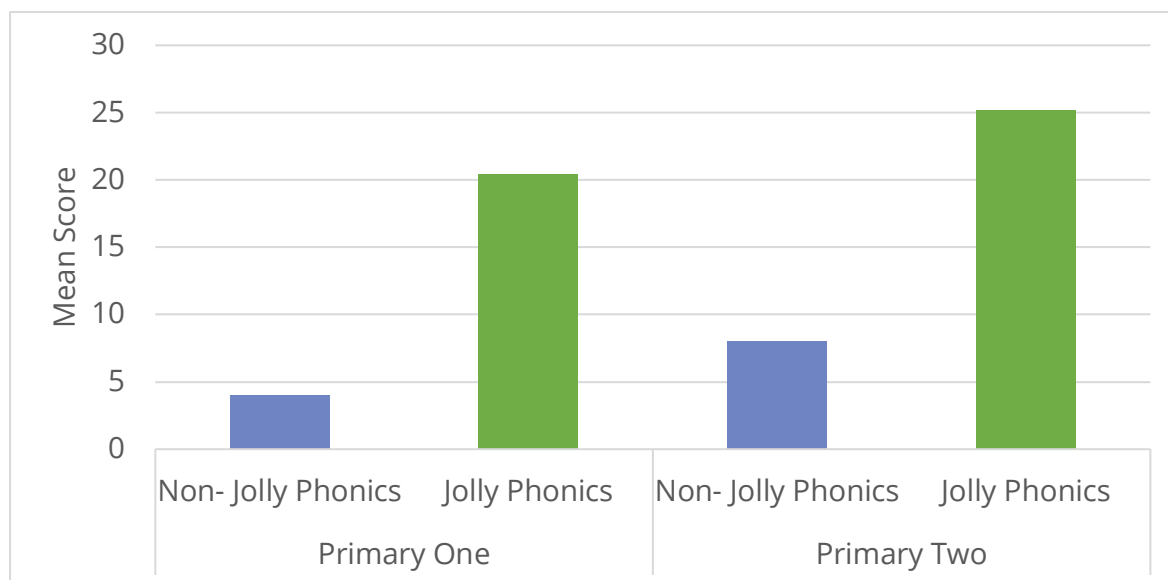
Grade	Taught Jolly Phonics?	N	Mean	Std. Deviation	Std. Error Mean
Primary One	no	762	3.98	6.175	.224
	yes	2164	20.44	11.933	.257
Primary Two	no	1321	8.01	9.465	.260
	yes	1548*	25.19	12.984	.330

Primary 1 $t = -48.353$, $p < 0.001$

Primary 2 $t = -40.860$, $p < 0.001$

**Note that the split of Primary 2 pupils being taught Jolly Phonics and not being taught Jolly Phonics is 54% and 46% respectively, which is different to the 75% and 25% school split. This is because, at the time of the assessments, the Jolly Phonics intervention had only moved up to Primary 2 classes in the schools reached under the UBEC Teacher Professional Development fund and not those reached under the Global Partnership for Education fund, as described above.*

Figure x – Comparison of Mean Scores on Letter Sounds Test for Non-Jolly Phonics and Jolly Phonics Pupils



Word Reading Test

Figures x and x show the pupils' Word Reading Test scores for those being taught with Jolly Phonics and those not taught with Jolly Phonics through boxplots. In Primary 1 and 2 the median is much higher for those children being taught Jolly Phonics. The upper quartile spread in both grades for those being taught Jolly Phonics shows that more of these children are obtaining higher grades. There are outliers for the children not being taught Jolly Phonics on this test, but overall most children in the non-Jolly Phonics group scored very low on the word reading test.

Carrying out independent samples t tests shows that for both Primary 1 and 2 there is a statistically significant difference between the children who are learning with Jolly Phonics and those that are not in terms of their Word Reading Test score (Table 7).

Figure x then compares the mean scores for each group in each year and clearly shows just how far ahead the Jolly Phonics group were in terms of their mean word reading score, again even with the outliers in the non-Jolly Phonics group.

Figure X – Pupils’ Word Reading Test Scores in Primary 1

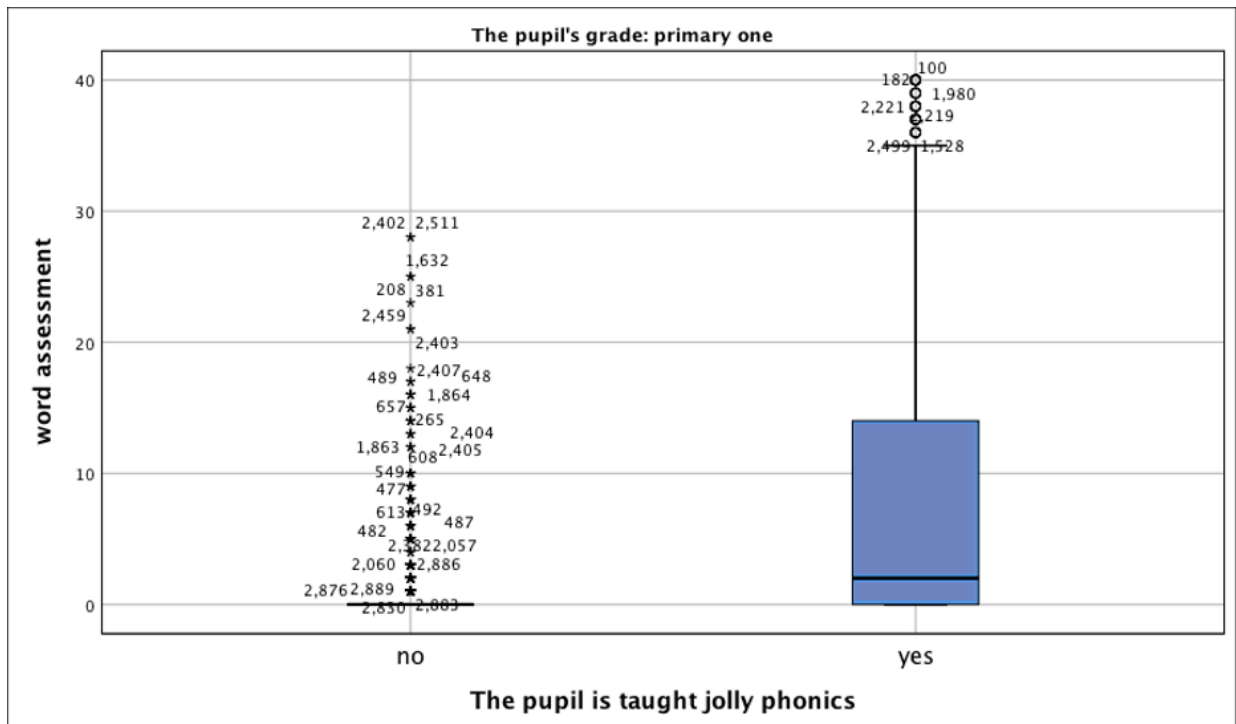


Figure X - Pupils Word Reading Test Scores in Primary 2

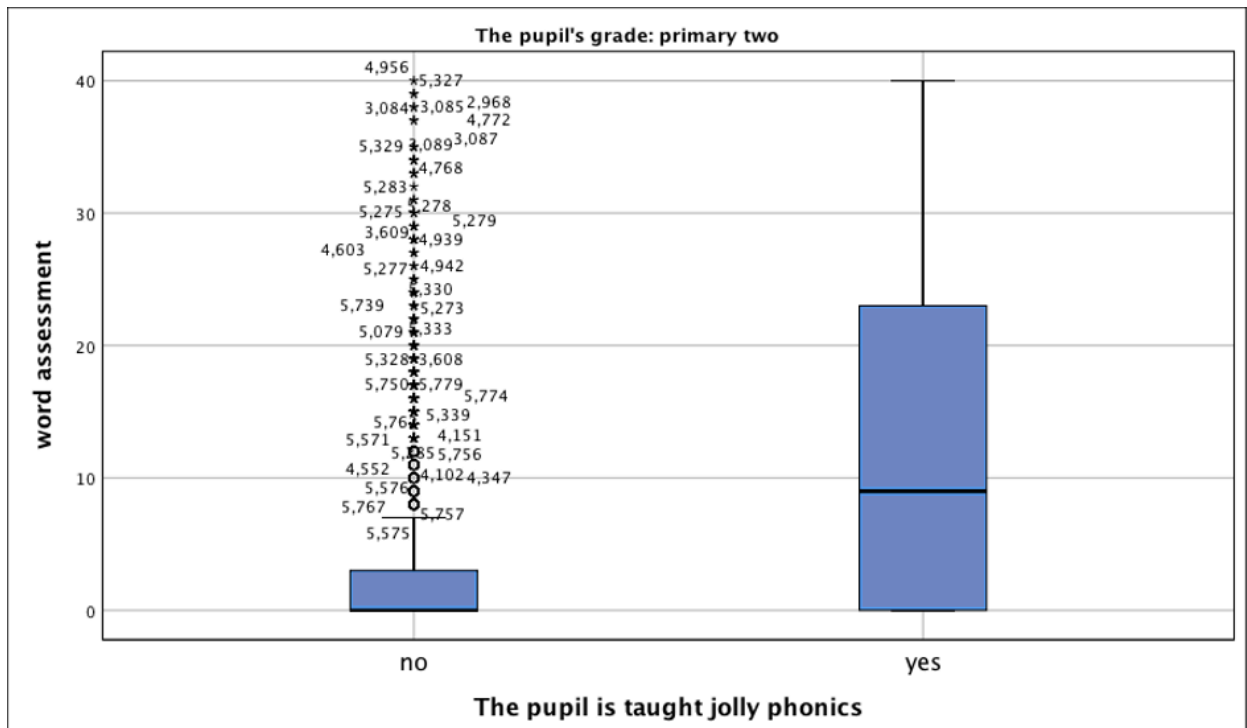


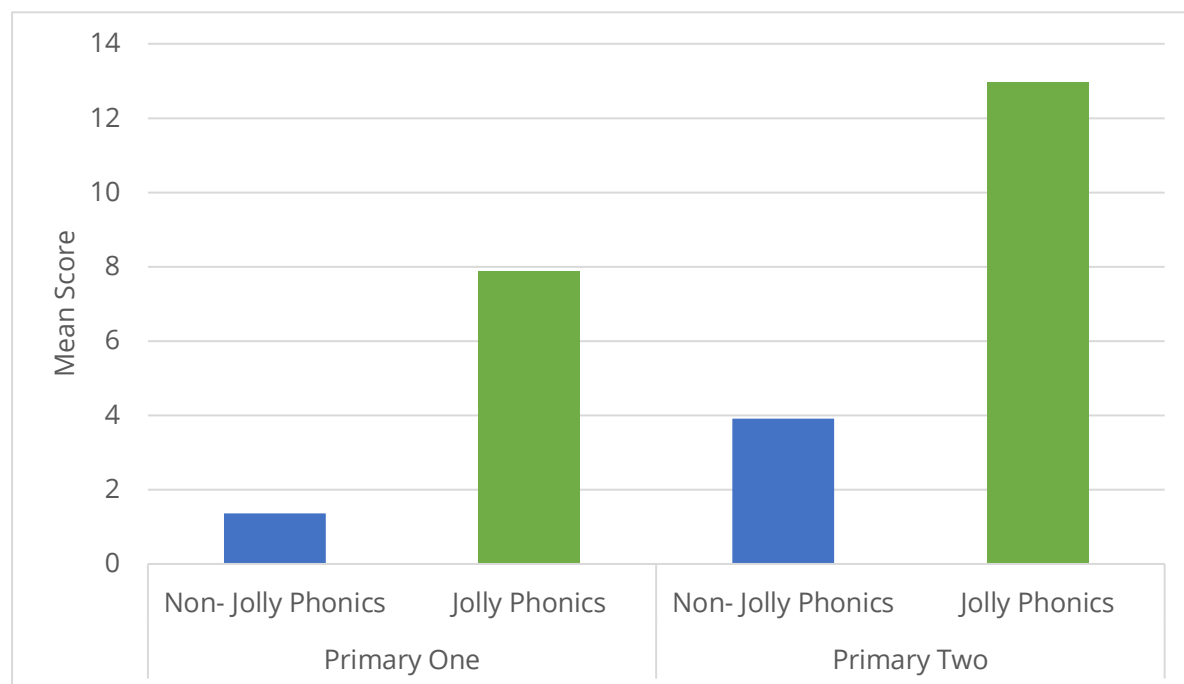
Table 3 - Independent samples t tests for Word Reading Test

Grade	Taught Jolly Phonics?	N	Mean	Std. Deviation	Std. Error Mean
Primary One	no	745	1.36	3.742	.137
	yes	2163	7.86	10.268	.221
Primary Two	no	1315	3.91	7.445	.205
	yes	1548	12.97	13.165	.335

Primary 1 t= -25.010, p<0.001

Primary 2 t= -23.095, p<0.001

Figure x – Comparison of Mean Scores on Word Reading Test for Non-Jolly Phonics and Jolly Phonics Pupils



The Impact of Teacher Training / Other Interventions

During the assessments, the teachers from both the Jolly Phonics and non-Jolly Phonics schools were asked if they had been trained in any other literacy programmes, including those used under the Education Sector Support Programme in Nigeria (ESSPIN), the Teacher Development Programme (TDP), the Reading and Numeracy Activity (RANA), the Northern Education Initiative + (NEI+), and any others.

The following table shows the frequency and percentage of pupils being taught by a teacher with the different literacy trainings. It shows that Jolly Phonics and ESSPIN were the main literacy programmes that these sampled teachers had been trained in, with 90.8% of teachers being trained in one or both. Just 5.5% of teachers reported being trained in a programme other than Jolly Phonics and/or ESSPIN, and 8.7% reported not being trained in any programme at all. This shows that the main evaluation of the impact of training should be the impact of ESSPIN and Jolly Phonics. This also shows that the majority of the control pupils were being taught by a teacher that had been trained in ESSPIN.

Table xx - Then number of pupils being taught by teachers with different training

	Frequency	Percent
No training	502	8.7
RANA	29	.5
ESSPIN	1170	20.2
ESSPIN and TDP	31	.5
ESSPIN and RANA	40	.7
Jolly Phonics	1063	18.3
Jolly Phonics and TDP	10	.2
Jolly Phonics and RANA	60	1.0
Jolly Phonics and other	10	.2
Jolly Phonics and ESSPIN	2696	46.5
Jolly Phonics, ESSPIN and TDP	30	.5
Jolly Phonics, ESSPIN and RANA	100	1.7
Jolly Phonics, ESSPIN and NEI+	10	.2
Total	5751	99.2
Missing System	49	.8
Total	5800	100.0

Figures x – x present boxplots of pupils’ scores on both tests broken down by the training that the teacher had received. All of these boxplots essentially show the same thing; that children in both Primary 1 and 2 taught with a teacher trained in Jolly Phonics performed much better on both the Letter Sounds Test and the Word Reading Test than those taught by a teacher trained in ESSPIN only, and ESSPIN plus one of the other programmes, or by a teacher that had not received any training at all. This shows that Jolly Phonics has been much more effective than ESSPIN at improving pupils’ literacy levels in Kano State.

However, it also shows that, where a teacher has received training in both ESSPIN and Jolly Phonics, their pupils had higher scores on both tests than pupils taught by a teacher trained in Jolly Phonics only, and this affect was greater if they had also been trained in a third literacy programme. This suggests that the more training teachers receive, the higher their knowledge and skills in teaching children to read and write. This shows that most teachers have not been confused by the training in different approaches.

Figure x – Primary 1 Letter Sounds Test Scores and Teacher Training

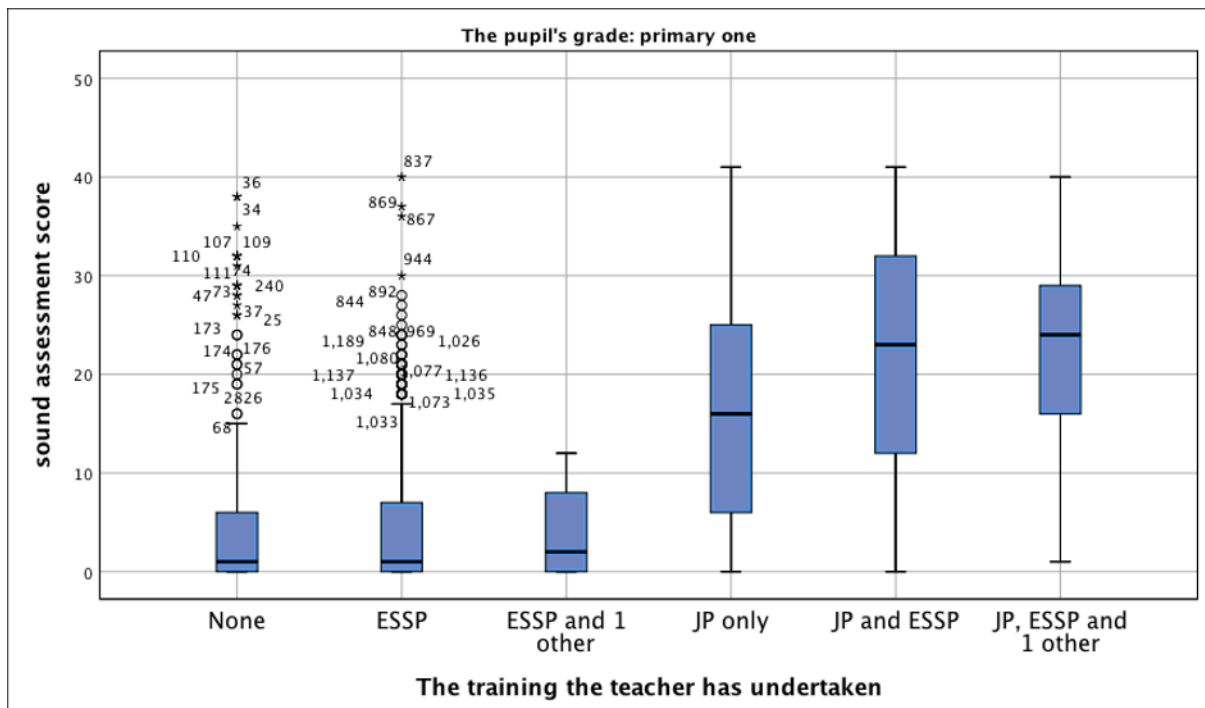


Figure x – Primary 2 Letter Sounds Test Scores and Teacher Training

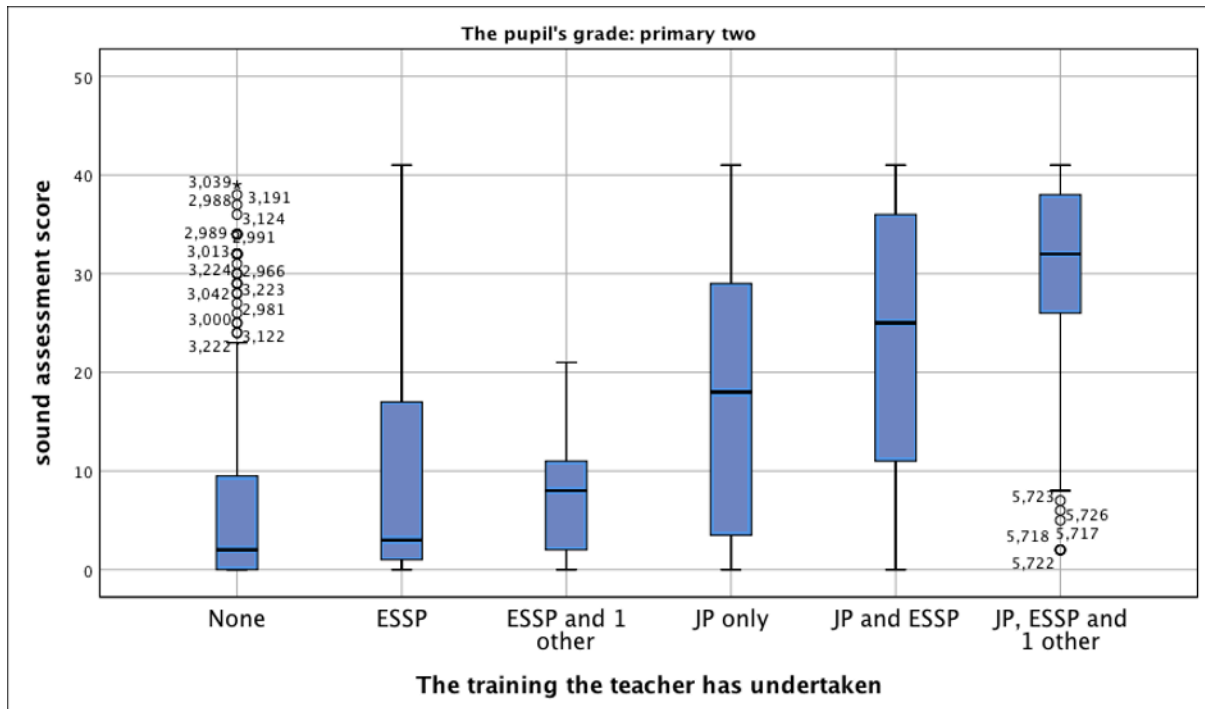


Figure x – Primary 1 Word Reading Test Scores and Teacher Training

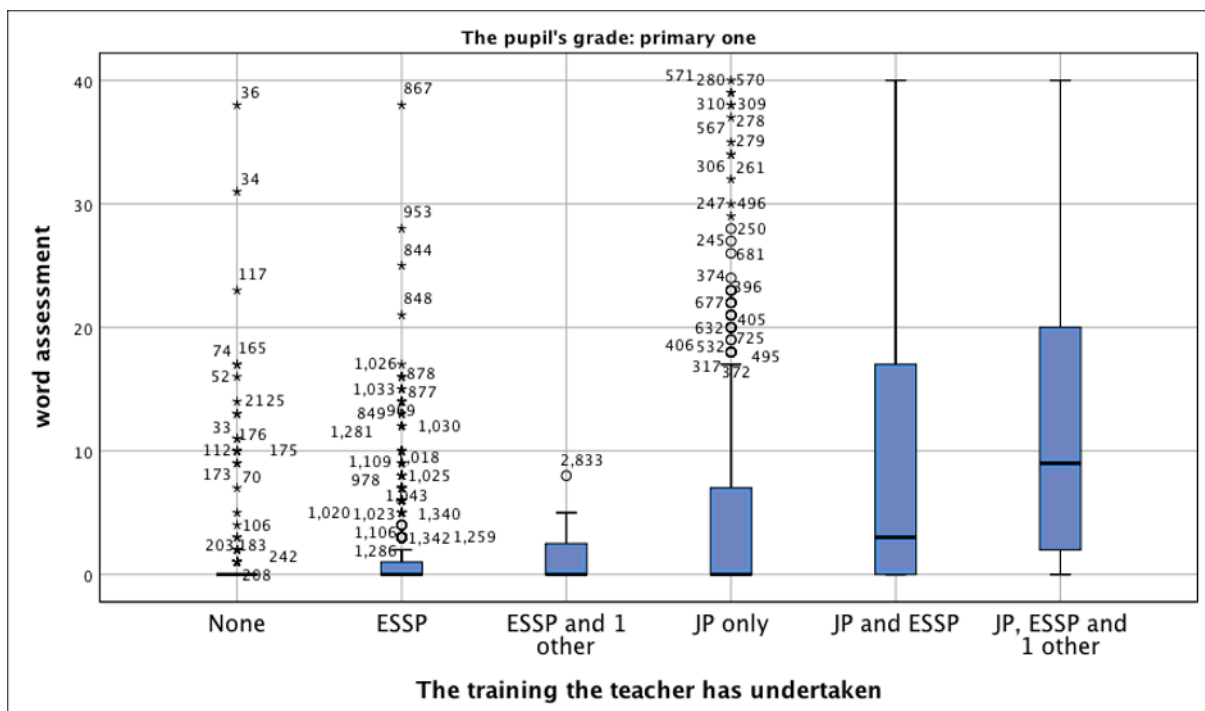


Figure x – Primary 2 Word Reading Test Scores and Teacher Training

