

Research Support for Nessy Learning

Nessy Reading Pilot Case Studies - Initial Findings



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EXECUTIVE SUMMARY

The current report presents initial findings from three case studies involving the usage of Nesy Reading at different schools in the South West of England. In Bristol, **Combe Down School** used the programme intensively across 12 weeks (with 1 week off for half term) with two groups from each of the Years 2 and 3. Standardised word reading and spelling tests were carried out before and after the intervention, with two groups using Nesy Reading for the full time (the Test group) and two groups using Nesy Numbers as a Control group.

Henleaze School, also in Bristol, used Nesy Reading with specific students in special educational needs groups in Years 3 and 4. Again they used the programme intensively for 12 weeks, with a week off for half term. Testing took place before and after with Standardised scores again recorded for all children using Nesy Reading, although no Control group was used in that case.

Saltash School used the Nesy Reading programme with three years, 7, 8 and 9. The groups only used the programme once a week so provides a much less intensive example of usage. They were all tested for Reading and Spelling ability at the start of the academic year (2014/15) and again at the end. Again no Control group was used in this case study.

It has been found that for relatively high achieving mixed ability classes of Year 2 and 3 children (Combe Down), 12 weeks of Nesy Reading has significantly boosted Standardised Reading scores by 7.0 points (equivalent to 9.1 percentile points) and Standardised Spelling scores by 4.8 points (8.3 percentiles). In contrast, children who did not do Nesy Reading increased their Standardised Reading scores by 0.8 points (equivalent to 0.7 percentiles) and Standardised Spelling scores by 2.2 points (2.4 percentiles). There is clear greater boost to scores, particularly in Reading, from using the Nesy Reading programme over those that have not used it.

For special educational needs children at a regular school (Henleaze), there was an even greater boost found in those that did 12 weeks of Nesy Reading. The children that used the programme significantly increased their Standardised Reading by 7.5 points (in this case equating to 15.4 percentiles) and Standardised Spelling increased by 4.25 points (9.1 percentiles). As these would have been lower in terms of their starting percentile they would have been able to rise further (as the Combe Down group were likely to have a 'ceiling effect' in reaching the top of the percentiles).

For three Year-groups of children (Years 7 to 9) using the Nesy Reading programme for a school year (Saltash), there has been a significant boost to Standardised Reading percentile of 16.0 points and an increase in Standardised Spelling percentile of 12.1 points. There is a greater increase with these groups in line with the length of time they have been using the product.

In terms of Reading Age, it was found that the Test group at Combe Down significantly advanced in Reading Age by an average of 1.35 years; in contrast, the Control group only advanced by 0.40 years in the 12 weeks they were part of the trial. In Henleaze, the special educational needs children significantly increased their Reading Age by 1.11 years in 12 weeks, a substantial gain for such a group. In Saltash, the nine months of Nesy Reading led to a Reading Age advance of 0.87 years, therefore surpassing the 9 months (0.75 years) in which they were using the programme.

Further work will analyse chronological and reading ages in line with these findings.

1. COMBE DOWN SCHOOL, BRISTOL

- 1.1 The Combe Down dataset was drawn from two groups in Year 2 and two groups in Year 3. One group in each year was assigned as a 'Test' group – these used the Nessy Reading programme for 11 weeks (including a week off for half term) from April until July 2015. They were tested before and after using the programme. The other 'Control' group used the Nessy Numbers programme for the same time period, with the same tests carried out before and after the Control intervention.
- 1.2 The dataset measured both the students' reading ability and spelling ability, each of which was tested separately. The data allowed for three variables to be tested:

- Test Timing (Pre vs. Post intervention)
- Experimental Group (Control vs. Test group)
- Year Group (2 vs. 3)

Standardised Reading Scores

- 1.3 The standardised reading scores showed a significant positive effect of using the Nessy Reading programme. It was found that there was an overall significant effect of Timing ($p < 0.001$), meaning that overall, ignoring all other factors, reading scores were significantly higher Post intervention (mean Post score: 117.2; mean Pre score: 113.2), whether the participants had been in the control or test group. This basically tells us that 'children get better at Reading tests with time'.
- 1.4 Importantly, there was also found to be an interaction between Reading scores (Pre and Post) and the Experimental Group (Control and Test), as can be seen in Figure 1.1 below.

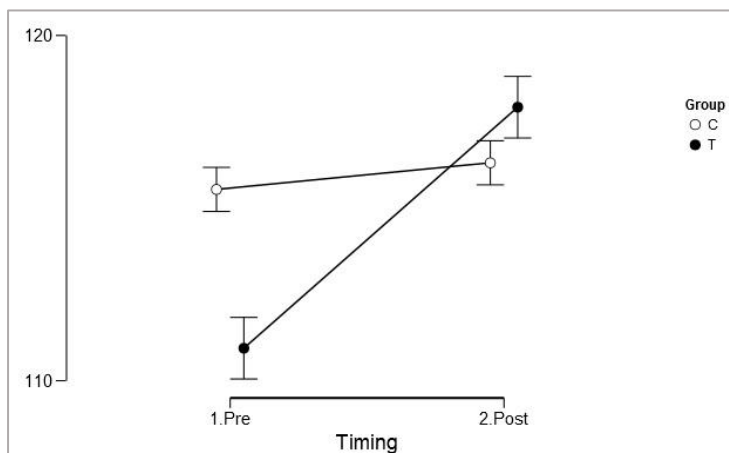


Figure 1.1: Combe Down Standardised Reading Scores, Interaction between Group and Timing

- 1.5 Figure 1.1 shows that before using any Nessy product (in the Pre-condition), the Test groups (T) scored significantly lower than the Control groups (C) ($p = 0.036$). This is likely to be a statistically random chance finding and it is noted that both Test and Control groups scored well above the standardised average score of 100.

1.6 The interaction between Timing and Experimental Group is seen in the fact that those doing the Nessy Reading exercises (the Test group) increased their Standardised Reading scores by a greater amount than the classes that did Nessy Numbers (the Control group). The Control Group saw a slight increase between Pre and Post conditions but the Test group increased dramatically, and in fact across the two school years the Test group scored higher Post intervention than the Control group (which had scored significantly lower previously in the Pre intervention Test).

Standardised Spelling Scores

1.7 The standardised Spelling scores showed an overall significant increase between the Pre (109.4) and Post (112.9) conditions ($p < 0.001$), but no other significant effects. This suggests that, statistically, both the Test and Control groups were increasing their ability at a similar rate. This might be an effect of having practiced the test previously, hence letting the children be more prepared for the test the second time.

1.8 As can be seen in Figure 1.2, there might be an effect of using the Nessy Reading that has not been revealed as the sample group is not large (i.e. powerful) enough. The Figure shows that in the Pre test, the Control and Test group are similar, with Test slightly lower. In the Post condition, the Test group score higher, although not statistically significantly higher. Further work could well reveal the effect on Spelling as significant.

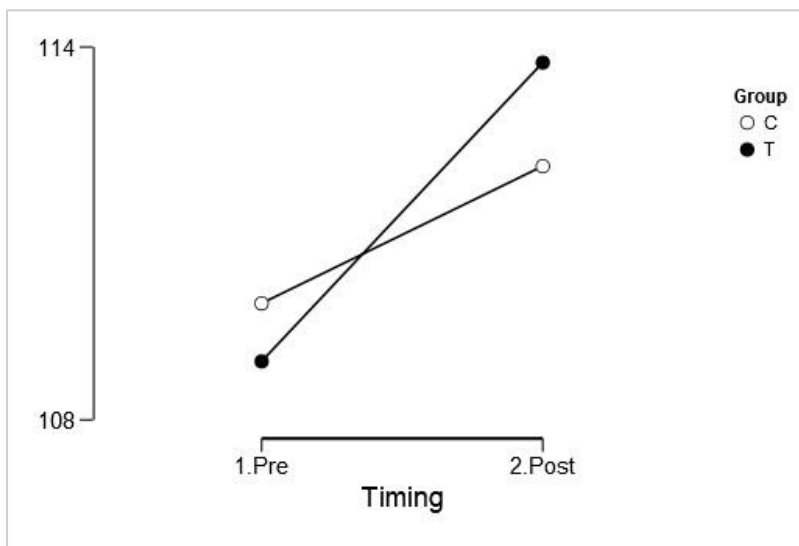


Figure 1.2: Combe Down Standardised Spelling Scores, Main effect of Timing

2. HENLEAZE SCHOOL

2.1 Henleaze School carried out a 12 week trial of the Nesy Reading programme with specific special educational needs children in Years 3 and 4. As with Combe Down, they used Nesy Reading for 11 weeks (including a week off for half term) and were tested before (April 2015) and after (July 2015) the intervention.

Standardised Reading Scores

2.2 There was found to be a significant increase in Standardised Reading score after the intervention compared with before (Pre: 99.3) and after (Post: 106.9; $p < 0.001$), as shown in Figure 2.1. There were no other significant effects.

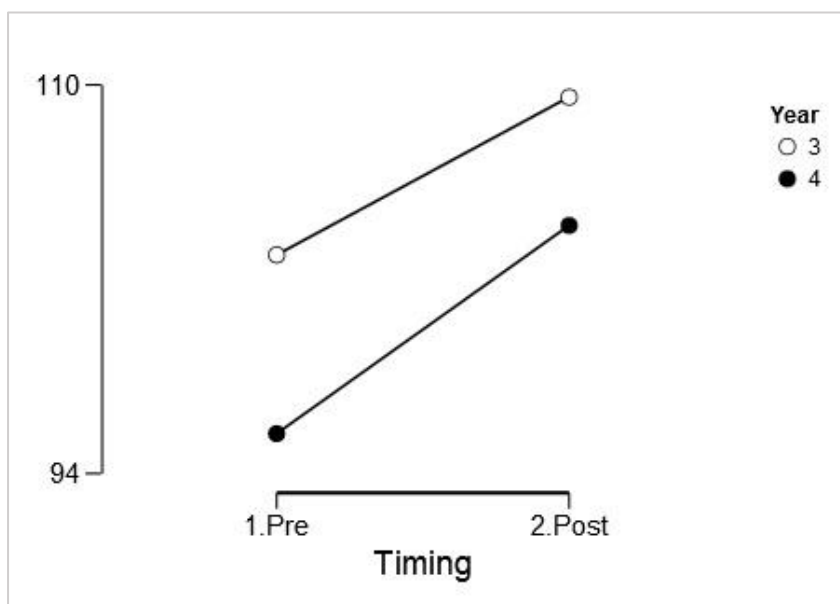


Figure 2.1: Henleaze Standardised Reading Scores

2.3 An interesting comparison can be made here with the Combe Down Test and Control group using the Percentiles for each (as these are more directly comparable). The Henleaze group increased their scores by an average of 7.5, while the Combe Down Test group increased by 7.0 and the Control group increased by 0.8. This is supported by statistical testing comparing the Combe Down Control and Combe Down Test groups with the Henleaze group, with there being a significant difference in the amount of change between Henleaze and Combe Down Control ($p < 0.001$) but not between Henleaze and Combe Down Test ($p = 0.84$). This shows that the change in scores found in Henleaze is statistically much more similar in size to the change found in the Test group in Combe Down, but not the Control group.

Standardised Spelling Scores

2.4 A very similar pattern of results was found for the Henleaze Standardised Spelling scores, with a significant effect of using Nesy Reading (Pre: 94.8; Post: 99.1; $p = 0.009$), as shown in Figure 2.2. Again, no other significant effects were found. The change in Standardised Spelling score was also considered and compared with Combe Down. Henleaze school scores rose by 4.25 on average, compared with the Combe Down Test group rising by 4.8 and the Control group rising by 2.2. This

again suggests a closer relationship with the Test group than the Control, although when compared statistically, no significant differences were found with either set of scores.

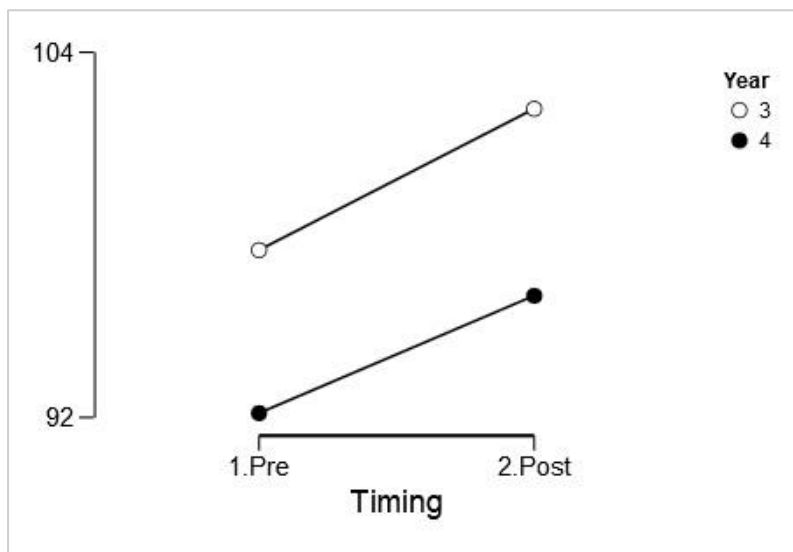


Figure 2.2: Henleaze Standardised Spelling Scores

3. SALTASH SCHOOL

3.1 Saltash School used the Nessy Reading programme across an academic year with children from Years 7, 8 and 9. They tested the groups in September 2014 and once again in June 2015.

Standardised Reading and Spelling Percentiles

3.2 In the three year groups (7 to 9) in Saltash that were involved in Nessy Reading exercises, collectively there was a significant increase in Standardised Reading percentiles from 58.9 Pre intervention to 75.0 Post intervention ($p < 0.001$). There was no effect of Year Group, i.e. all three groups increased their Percentile roughly equally, as shown in Figure 3.1. A very similar pattern of results was found for the Spelling percentile (Figure 3.2) with the Pre percentile (32.0) significantly lower than the Post (44.6) ($p < 0.001$).

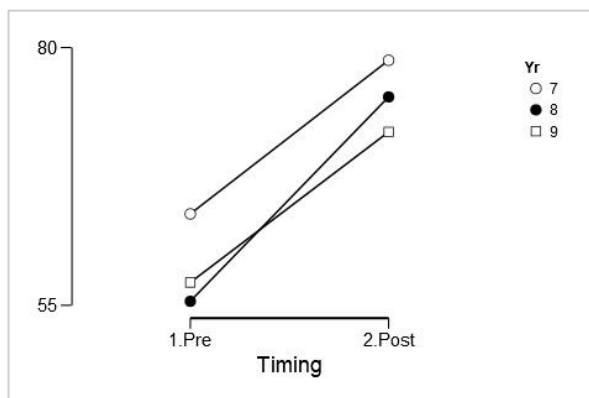


Figure 3.1: Saltash Reading Percentile

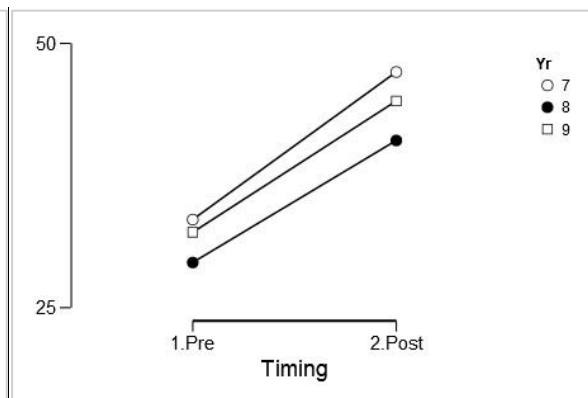


Figure 3.2: Saltash Spelling Percentile

