



The effect of the
Nessy Reading and Spelling
structured literacy program
when added to the regular curriculum
of schools in Northern Ireland

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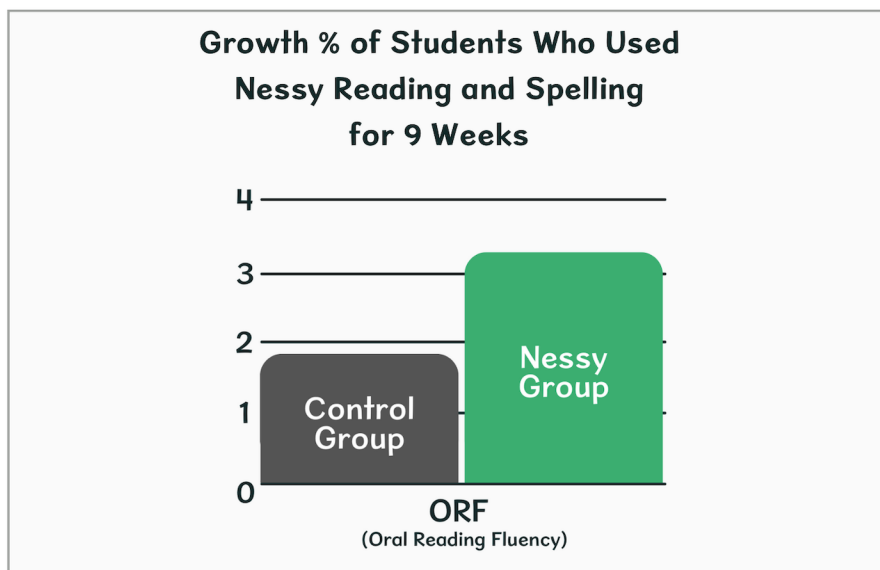
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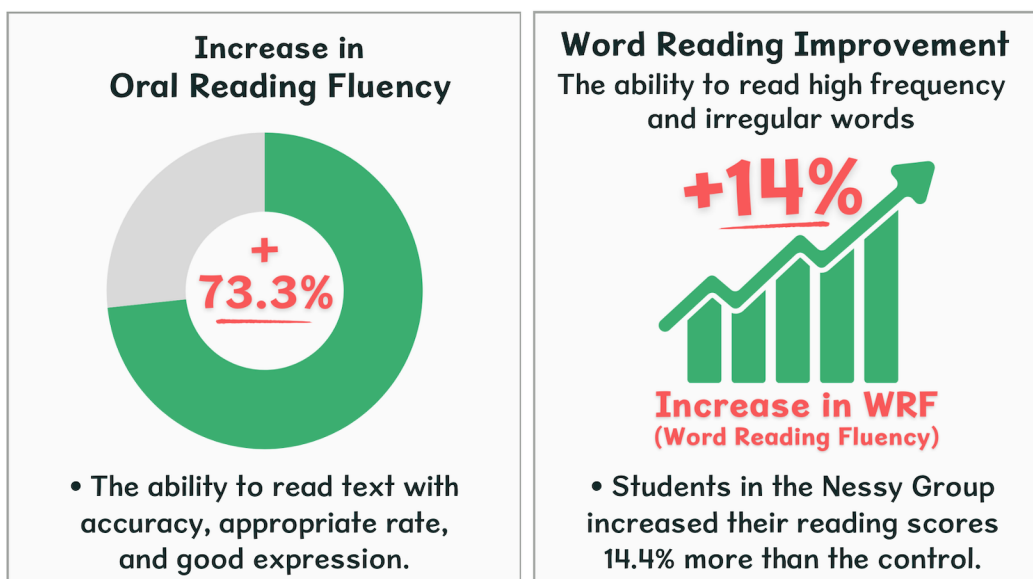
Introduction

In the summer of 2021, Nessy Reading and Spelling (NRS) was tested in 22 schools in Northern Ireland. The goal of the study was to compare the literacy growth of students following the standard whole-class curriculum, to those whose weekly learning was enriched with individualised instruction through the addition of the Nessy Reading and Spelling program.

After 6-9 weeks of use, students using Nessy Reading and Spelling scored 73.26% higher than non-Nessy users in Oral Reading Fluency.



Students using Nessy Reading and Spelling also scored 14.4% higher in single word reading than non-Nessy users.



Students in P3, P4, P5 (7, 8 or 9 years old) in Northern Ireland who used Nessy Reading and Spelling for 40-70 minutes per week, for 9 weeks in June 2021.

Program Description

Nessy Reading and Spelling is a Structured Literacy program. It is delivered online, and individualises instruction based upon student work and progress monitoring, with inbuilt assessments.

In this study, teachers were not actively involved in teaching the structured synthetic phonics or the structured literacy skills being instructed to the students. The teaching and practice of these concepts was attributed purely to the work students did independently, using the online Nessy Reading and Spelling program.

Case Study Structure

Teachers were asked to ensure students in the test groups logged into the Nessy Reading and Spelling (NRS) teaching program for a minimum of 40 minutes per week, but not more than 70 minutes per week, for six to nine weeks.

To ensure that the students were randomly selected, the class lists were alphabetised, then divided into two groups. One half of the class was assigned to the control group, and one half to the Nessy group. If there were two participating classrooms of the same grade level/year level, one classroom would be assigned to the controls, and the other one to the Nessy Group.

Two pre-tests were given to all students before beginning the study. Two post-tests were given at the conclusion of the program. The tests were the Dynamic Indicators of Basic Early Literacy (DIBELS) Word Reading Fluency (WRF), and Oral Reading Fluency (ORF).

DIBELS WRF measures the students' skill in reading sight words and irregular words.

DIBELS ORF measures accuracy and fluency with connected text.

▶ **10 schools met the criteria for inclusion in the final case study.**

The inclusion criteria were:

- All or most students met the 40-70 minute per week usage guideline and completed both pre- and post-tests.
- Student pre- and post-testing data was provided electronically to study facilitators, along with paper copies of test sheets completed by teachers or TAs (and any teacher notes), for comparison.
- DIBELS testing was completed with fidelity.

▶ **114 schools turned in partial data with various components missing or unusable.**

These included:

- Completing word reading test only but not oral reading fluency.
- Not having enough students who met the usage requirements of 40-70 minutes per week on the NRS program.
- Not completing the DIBELS testing with fidelity (probably due to a misunderstanding of testing instructions).
- Not providing a spreadsheet detailing the scores for verification.

▶ **If an individual child was excluded from the data set,**

it was because they fell into one or more of these categories:

- Student did not meet the minimum requirement of an average of 40 minutes per week of active learning time on the program, or they used the program 71 minutes per week or more.
- Student was missing either their pre- or post-test – this could be due to various reasons; withdrawal from the school during the study, absence due to illness, an error on the part of the test administrator (using the wrong testing materials, or not following the instructions for test administration for example).
- The test was discontinued by the teacher per DIBELS instructions, for example: the student could not read one word within the first line of text.
- Handwritten scoresheet did not match cover sheet or an error in transcription of scores (this was uncommon, and accounts for only a few tests out of thousands).

After teachers completed the pre-test and post-test, they entered this data into a spreadsheet and sent it to us. This was followed by mailing us the handwritten copies of the test booklets, and any teacher notes. To ensure accuracy, each dataset was checked and compared to the handwritten copies and teacher notes by three different individuals.

The participating schools were located in Northern Ireland. The study was completed in partnership with a local volunteer parent advocacy group, and facilitated by three specialist reading tutors. The lead facilitator provided DIBELS testing materials, program support, and training to schools involved with the study. The other professionals provided general support and advice to contributing teachers.

A sample portion of the instructions provided to participating schools can be found below:

Who?

Any P3-P5 students.

What is required?

- A minimum of 30 students (half will be in the control group and will not use NRS). Whole year groups are encouraged, but not required. Students must be chosen randomly and not by ability.
- 6-9 week minimum participation (time is ticking before summer break).
- A minimum of 40 minutes per week participation (but preferably 60-80 minutes) using the Nessy Reading and Spelling program for those in the NRS group.
- 4 very low-prep 1-minute DIBELS 8th Edition tests administered by a teacher or teaching assistant (2 tests within two weeks of beginning NRS and 2 within two weeks of completing the 6-9 week period). 4 minutes total! Control group is tested as well. Testing materials and easy-to-follow instructions are included.

Benefits to your school:

- Free licenses for the Nessy Reading and Spelling program for the 2021-2022 school year!*
- FREE NESSY ONLINE TRAINING for ALL TEACHERS AT YOUR SCHOOL.

- Benefits for the 2021 Summer Term: 6- 9 weeks of an evidence-based online literacy intervention to assist in mitigating the effects of the COVID lockdown for P3-P5 students.

*number of licenses equal to the number of children who participate in this study.

Follow these 5 easy Steps:

1. Email me back at daniadvocacy@gmail.com. Please include the following information:

A) The # of students in the study.

B) The way you are choosing your Control and NRS group (See “How to choose a group” slide).

2. I will email you an Excel spreadsheet (for student names and birthdates), the DIBELS 8 Assessments and an easy scoring sheet.

3. Email the Excel spreadsheet as soon as you can to jude@nessy.com, subject: Northern Ireland Nessy Research.

Jude will then email you the code for free teacher training and your Nessy account. Students can begin using NRS immediately after Nessy sets up the account for you.

ALL STUDENTS, INCLUDING THE CONTROL GROUP, WILL BE ASKED TO COMPLETE THE NESSY ONLINE PLACEMENT TEST. IT IS GIVEN IN A GAME FORMAT. INDEPENDENCE IS ENCOURAGED.

4. Complete 1-minute DIBELS 8th Edition tests (Oral Reading Fluency and Word Reading Fluency) within two weeks of beginning NRS and then again within two weeks of completing the 6-9 week period. USE THE SCORING SHEET PROVIDED.

5. MAIL THE HARD COPIES (with scoring sheets) TO NESSY:

Nessy Learning

C/O Tiffany James

PART 2

I have attached the following documents:

- a participation agreement

- DIBELS 1-minute assessments (Oral Reading Fluency and Word Reading Fluency) for P3-P5
- DIBELS scoring sheet
- Excel spreadsheet for school information, student names and birthdates only

Note: Although the participation minimum for the NRS group is 40 minutes per week/per child, it is much more beneficial for students to complete 70 minutes/week. Please aim for this if you can.

The number of licences you are given next year is determined by the number of students who have pre and post-test data and meet minimum usage in the Nessy group + the number of students with pre and post-test data in the control group. The more students that hit the minimum usage during the study, the more free licences next year.

Teachers were not given intensive training on the programs use.

Instead, they were provided information that instructed them in the basics of logging in and program navigation. Other than this information, the students were not given additional teaching or instruction and worked independently throughout the project.

In this study, teachers did not extensively utilise the printable resources available within the program. The students utilised only the digital resources.

The recent pandemic has made us aware of how important it is for students to be able to work remotely if necessary, and be supervised by not only teachers, but parents and non-professionals as well. A goal of this case study was to measure how effective the program could be without extensive teacher training in structured synthetic phonics, structured literacy, or reading science.

The program was left in the default setting of target mode, which after an initial pre-test (which assesses the student's literacy level), guides the student through a series of lessons and practice sessions, based upon the student's work within the program.

Word Reading Fluency (WRF)

Applicable grades: Beginning of kindergarten through end of third grade.

Objective: Student reads sight words for 60 seconds.

Uses: Benchmark and risk assessment; progress monitoring.

Materials

- Scoring book
- Student form
- Pen or pencil
- Clipboard
- Timer

Administration

1. Position the clipboard and timer so that the student cannot see what you record.
2. Place the student copy of the WRF form in front of the student.
3. Say these specific directions:

Please read from this list of words.

(point to the student form)

Start here

(point to the first word)

and go across the page.

(point across the page)

When I say “Begin,” point to each word and read it the best you can.

If you get stuck, I will tell you the word, so you can keep reading.

Put your finger on the first word.

Ready?

Begin.

4. Start the timer when student says first word.
5. Follow along in the Scoring Booklet. As the student provides responses, put a slash (/) through each word read incorrectly. See Acceptable Prompts and Scoring Rules for more details.
6. At the end of 60 seconds, place a bracket (]) after the last word read and say, “Stop.”

Acceptable prompts

There is only one acceptable prompt for WRF: a prompt for when students hesitate.

Hesitation Prompt. If student hesitates for 3 seconds on a word, give the correct word, mark the word as incorrect, point to the next word, and say:

Keep going.

Repeat this as many times as needed throughout administration. The maximum time for each word is 3 seconds.

Discontinue rules

Discontinue WRF Rule. If a student does not get any words correct in the first line (5 words), discontinue WRF, put a bracket after the last word attempted and record a score of 0.

Discontinue Benchmark Assessments Rule. For beginning of first grade only, if student does not get any words correct in the first 5 words: discontinue WRF and any further benchmark assessments for that time of year (i.e., ORF). At all other times of year, benchmark assessment continues regardless of WRF score.

Scoring Rules

WRF provides one score: the sum of words read correctly. Mark student responses according to the rules in the first table below. The second table provides several examples of common situations and how to score in them.

Correct responses Do not mark correct items on the scoring book.

Incorrect responses Put a slash (/) through words produced incorrectly.

Self-corrections If a student makes an error and corrects it within 3 seconds, write “SC” above the word and score it as correct.

Situation How to score

Sounded out words

If a word is sounded out without blending, it is incorrect. If a word is sounded out and then blended, it is correct.

Words	Student Says	Scoring Procedure	Score
joy draw cloud	“/j/ /oy/ draw cloud”	joy draw cloud	<u>2</u> /3
joy draw cloud	“/j/ /oy/ joy draw cloud”	joy draw cloud	<u>3</u> /3

Word order

Words read correctly but in the wrong order are scored as incorrect.

Words	Student Says	Scoring Procedure	Score
joy draw cloud	“joy cloud draw”	joy draw cloud	<u>1</u> /3

Omissions A word is incorrect if the student skips the word. If the student skips an entire line, cross out the line and record a score of 0 for that line.

WRF Fidelity of Administration

The observer should judge the full test administration. That includes observing setup and directions, timing and scoring the test in parallel with the examiner, checking the examiner’s accuracy in procedures using the fidelity checklist in Appendix D, and deciding if the examiner passes or needs more practice for each procedure listed.

Conclusion

The improvement the students made working independently on the Nesy Reading and Spelling program was significant.

It indicates the program's ability to adjust to the students' instructional needs, and provide specialised instruction, without the need of intensive educator or parental supervision.

It is not dependent upon the supervising adult's knowledge of phonics or structured literacy.

Because the students worked independently and were able to progress according to the speed of their skill acquisition, they were able to make gains and progress quickly through the most pertinent lessons.

This is demonstrated by the significant gains of the Nesy groups in both Oral Reading Fluency and single word reading at the conclusion of the study.

Demographic Data for Participating Schools

	Total Enrolment	FSME	% of pupils entitled to free school meals
Broadbridge Primary School, Belfast	425	66	15.5%
St. Brigid's Primary School, Downpatrick	259	80	30.9%
Elmgrove Primary School, Belfast	610	392	64.3%
Bushmills Primary School	112	62	55.4%
Hollywood Primary School	471	66	14.0%
St. Mary's Primary School, Draperstown	190	41	21.6%
Millstrand Integrated Primary School, Portrush	393	91	23.2%
Buick Memorial Primary School, Ballymena	277	65	23.5%

Gains/Losses on Each Measure by Campus

	Nessy Group % of Change in 8 Weeks		Control Group % of Change in 8 Weeks	
	ORF	WRF	ORF	WRF
Broadbridge	-0.08	-0.6	-3.7	-0.07
St. Brigid's	5.8	1.8	3	0.7
Elmgrove	5.1	1.2	0.6	-0.2
Bushmills	2	2	0.3	0.7
Hollywood	9.2	6.3	8.5	7.7
St. Mary's	-2.2	-1.9	2.2	-1.9
Mill strand	2.4	5.1	3.5	5.4
Buick	3.7	0.1	0.7	0.6
Average:	+3.24	+1.75	+1.87	+1.53

DIBELS information

DIBELS 8th Edition represents the culmination of decades of research into supporting students in becoming successful readers. DIBELS uses state-of-the-art, research-based methods for designing and validating curriculum-based measures of reading.

The purpose of DIBELS is to provide educators with standards for gauging the status and progress of all students. DIBELS subtests measure critical skills and abilities that are necessary for reading success.

[Click here for DIBELS information for schools.](#)

[Click here for DIBELS information for parents.](#)

*(P3) in Northern Ireland, is the third year of children's primary school education and the first year of Key Stage 1 (KS1). Pupils in P3 are aged between 6 and 7 years old, and P4 students are aged 7-8.

References

• DIBELS 8th Edition (2018). Chapter 2: Administration; Administration and Scoring Guide. University of Oregon. Available at: <https://dibels.uoregon.edu/sites/default/files/DIBELS8EditionBrochure.pdf> (pg. 73-75). Last accessed: June 24, 2024.