An tSeirbhís Náisiúnta Síceolaíochta Oideachais | National Educational Psychological Service

Effective Interventions for Struggling Readers

(Second edition, 2019)

A Good Practice Guide for Teachers

This NEPS Good Practice Guide was developed by educational psychologists. It is based on current knowledge in this area. It is intended as a guide only. Not all the suggestions here will apply to any one student or situation.

Section 1 Introduction

1.1 Who is this Guide for?

This is a guide for teachers, particularly special education teachers, primarily those working within mainstream schools, but also relevant to those working in many special schools and classes. While classroom teachers retain overall responsibility for a student's teaching and learning, special education teachers have a key role in giving additional assistance to struggling readers. This guide aims to help teachers by sharing information about evidence-based approaches to teaching reading to struggling readers. The guide does not explore in detail specialist approaches for children with very specific diagnosis and/or high levels of need- such a braille users, profoundly deaf students, children with autism or those with severe and profound learning disabilities.

The guide covers the age range 6 to 18 years. It also encompasses all students with reading difficulties, including those who have dyslexia (specific learning difficulties), as well as those who have made poor progress in reading and may or may not have additional general learning difficulties. Information here can be applied to students from disadvantaged backgrounds, minority groups and to students for whom English is not a first language. While the full range of literacy involves more than just reading the focus here is particularly on reading skills: the ability to decode, read fluently and understand text.

1.2 Structure of the Guide

The guide is divided into the following sections:

- **Section 1- Introduction, Defining Literacy, Context and Literature Review**
- **Section 2- Elements of Effective Reading Instruction**
- **Section 3- Organising for Effective Teaching**
- **Section 4- Assessment and Measuring Progress**
- **Section 5- Evidence-Based Interventions in Ireland**
- **Section 6- Resources to Support Struggling Readers**
  - **Healthy Literacy Diet- Templates**
  - **Precision Teaching Resources**
    - Teaching Sight Vocabulary and Improving Reading Fluency, A Good Practice Guide
    - Precision Teaching Approaches and Using SNIP
    - Checklists for First Hundred Words, Second Hundred Words and Phonics
  - **A Rough Guide to Reading Partners- A NEPS Good Practice Guide**
  - **Guidance on the Use of Positive Declarations**
- **References**
- **Acronyms**
- **Appendices**
- **Acknowledgements**

Throughout this guide, key messages for teachers are highlighted in yellow textboxes. If you do not want to read through the more detailed information, you can move quickly from box to box, picking up these key messages about effective teaching of reading.

1.3 Defining Literacy

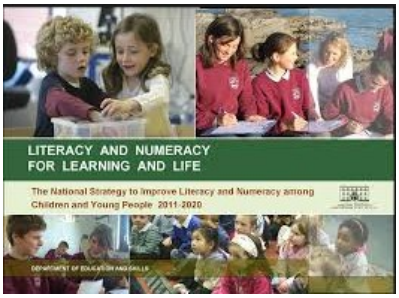
Definitions of reading and reading literacy have changed over time to reflect changes in society. Reading is no longer considered an ability acquired only in childhood. Instead it is viewed as an expanding set of knowledge, skills and strategies that individuals build on throughout life in various contexts, through interaction with their peers and the wider community. The massive growth in the use of computers and technological devices has moved literacy skills into a digital domain that requires a range of new and different skills than were needed 20 years ago.

To learn more about **international definitions of literacy**, including those of PISA, PIRLS and PIACC, see **Appendix 1.**

Definitions of literacy are evolving and current definitions of literacy, and particularly reading literacy, emphasise a constructivist and interactive process, where readers construct meaning from text. Literacy is seen as multi-faceted and increasingly includes digital literacy.

Information about the **theoretical understanding of literacy can be found in Appendix 2.**

1.4 The Context



This resource needs to be conisdered in the context of other policy and practice documents, particularly those curriculum documents that focus on the teaching of literacy. These include:

The National Literacy and Numeracy Strategy 2011-2020
The Primary Language Curriculum
Junior Cycle and Post-Primary Context
DES Policy and Guidance

The National Literacy Strategy 2011-2020 has brought about significant improvements in the literacy skills of Irish students, both at primary and post-primary level and these gains have been documented in international studies. However, further work needs to be done to raise the literacy achievements of some children in DEIS schools.

To learn more about each of these areas, see:

Appendix 3 The National Literacy and Numeracy Strategy 2011-2020
Appendix 4 The Primary Language Curriculum
Appendix 5 Junior Cycle and Post-Primary Context
Appendix 6 DES Policy and Guidance

1.5 What Sources of Evidence Were Used?

We already know a great deal about teaching reading to students generally, and there is now a growing knowledge base about how to help students who struggle with reading. This pack collates research evidence from a range of sources and suggests how this evidence can be applied to teaching practice.

This is the second edition of this resource. The first edition, published in 2012, included a synthesis of research findings drawn from twelve studies, which were characterised by rigorous methodological approaches. This edition supplements that evidence, with new up-to-date research, including research carried out in Ireland.

In collating this research, we have been mindful of the importance of looking at the quality of the evidence. It is sobering to read the multiple reports of the Education Endowment Foundation (EEF) in the UK. In 2018, their EEF Project Reports cover 38 literacy projects of which 42% found no effects on literacy or negative effects. Only 10 (26%) were considered 'promising'. This means that teachers need to be cautious about the claims made by commercial programmes and need to consider the scientific evidence to support the use of the programme.

A word of caution!
The quality of research varies greatly. As Brooks et al (1999) stated, it can vary 'from the meticulous to the appalling' (p51). Be cautious about interventions and programmes that are supported only by glowing 'testimonials'. Read all research with a critical eye and look for rigorous standards in data collection.

While a wide range of source material contributed to this second edition, there are three sources of information that need to be highlighted:

- **The What Works Clearing House**
- **The Education Endowment Foundation**
- **What Works for Children and Young People with Literacy Difficulties (Brooks, 2016)**

To learn more about each of these sources of information, see the following Appendices:

Appendix 7 The What Works Clearing House
Appendix 8 The Education Endowment Foundation
Appendix 9 What Works for Children and Young People with Literacy Difficulties (Brooks, 2016)

1.5.1 Data from Ireland

Finally, the research strategy for this second edition included specific focus on research done in Ireland in the last five years. Accordingly, a request was issued in the summer of 2016 to all

universities and teacher training colleges seeking up-to-date research, which may or may not have been published.

The criteria for inclusion were as follows:

- The intervention must have been used in Ireland
- The intervention must target school aged struggling readers (age range 5 to19 years). Struggling readers includes all those who struggle- dyslexic type difficulties/ low general ability/ socially disadvantaged/ English as an additional language/ unexplained reading failure etc.
- Research data about the efficacy of the intervention must have been collected in the previous five years (2011-2016)
- The data must include some form of standardised measurement of literacy skills (so teacher, pupil or parent opinion is not enough- there must be literacy attainments).
- Data can be published or unpublished, but we will need details about the source of the data, to enable us to check it thoroughly.

In total, we received 23 submissions, and where those submissions fully met our criteria, they are cited in this edition. In other cases, where criteria were not fully met, but the research was deemed promising, some references are included, as relevant.

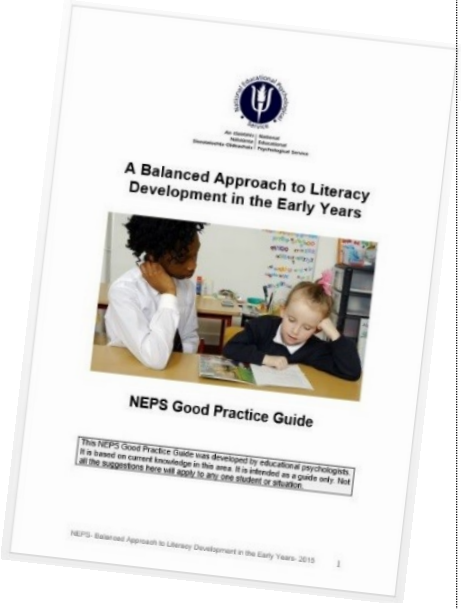
In many cases, the studies are relatively small-scale and therefore the reader is advised to be cautious when interpreting the research findings. Small-scale research cannot be generalised, but it certainly offers insights into new approaches and can be helpful in expanding our knowledge base and pointing to interventions with potential. NEPS continues to collect data about reading interventions through its own action research activities and through collecting data from other researchers.

To see details of the submissions, see Appendix 10.

1.6 Summary of Section 1

- **This guide is primarily intended to support the work of special education teachers**
- **It is presented in sections, covering key areas, with information about supporting material at the back**
- **The guide should be considered in the context of other DES advice and publications**
- **The guide is evidence-informed and includes up-to-date research evidence from major international sources**
- **Information about research in Ireland was collected using robust research criteria and 23 submissions were considered**

Section 2. Elements of Effective Reading Instruction


A Balanced Approach to Literacy Development in the Early Years

NEPS Good Practice Guide

NEPS has produced a resource that explores effective teaching in the Early Years, and this resource, ***A Balanced Approach to Literacy Development in the Early Years***, contains in-depth information about best practice in the teaching of early literacy skills. This resource also gives an overview of all the elements needed for effective reading instruction. Teachers working with struggling readers who are at a very early stage of development, may find some of the resources particularly helpful.

It is acknowledged that Early Years education is crucial for the early development of language and literacy skills. There have been recent developments in quality-assuring the Early Years sector in Ireland and the DES Inspectorate now have a particular focus on early literacy in Early Childhood Care and Education (ECCE) settings.

2.1 Elements of Effective Reading Instruction

It is clear that the following elements should all form part of an effective programme (National Reading Panel (NRP), 2000; Scammaca et al., 2007; Singleton, 2009; Kennedy et al., 2012; Eurydice Network, 2011, Education Endowment Foundation, 2016 & 2017).

- An emphasis on oral language, to include vocabulary development
- Phonemic awareness and the teaching of phonics, decoding and word studies
- Learning of a sight vocabulary
- The explicit teaching of comprehension strategies
- Meaningful writing experiences
- The development of fluent reading with opportunities for both guided and independent reading, including informal reading activities
- Reading at the 'Just-Right' level
- Access to a wide-range of reading materials

For those who struggle to read, there is a risk that the main purpose of being able to read becomes lost. The desired outcome is that children not only can read, but **want** to read. For this reason, reading needs to be motivating and meaningful.

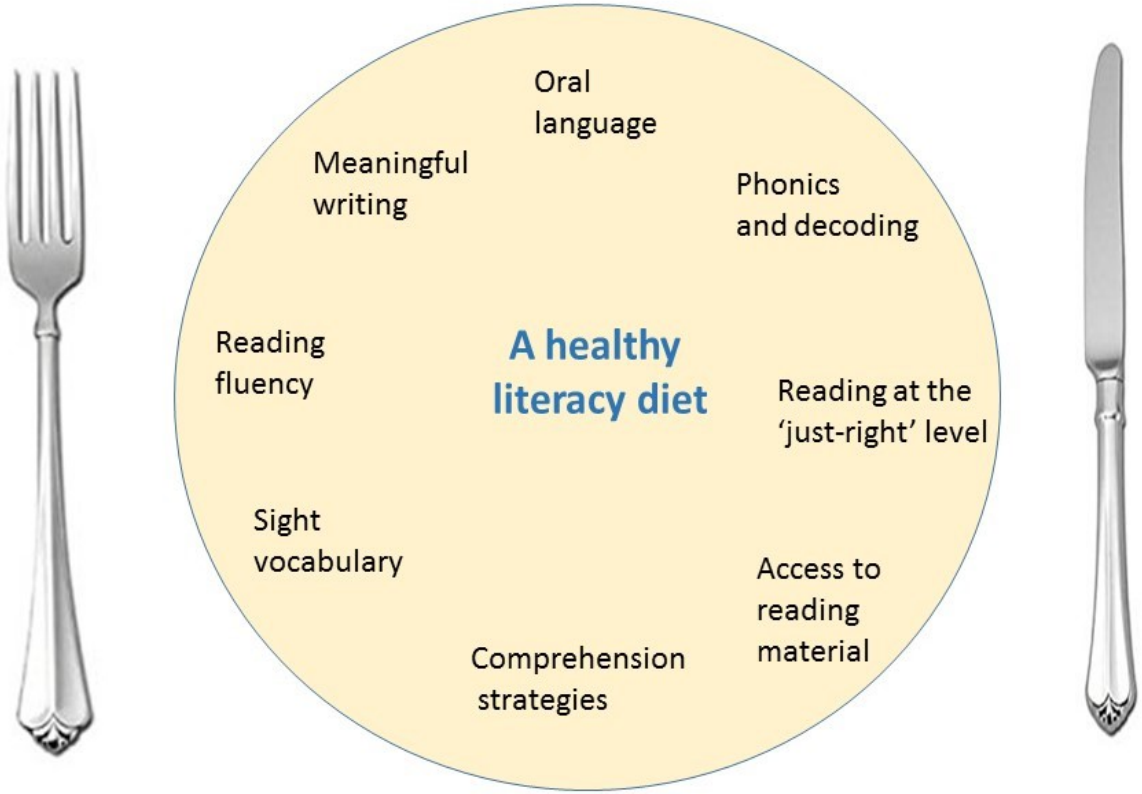
Additionally, metacognition is an important aspect of the learning experience. The goal of intervention is that the child becomes a constructive learner, learns how to learn and becomes a self-regulated learner.

2.2 A Healthy Literacy Diet

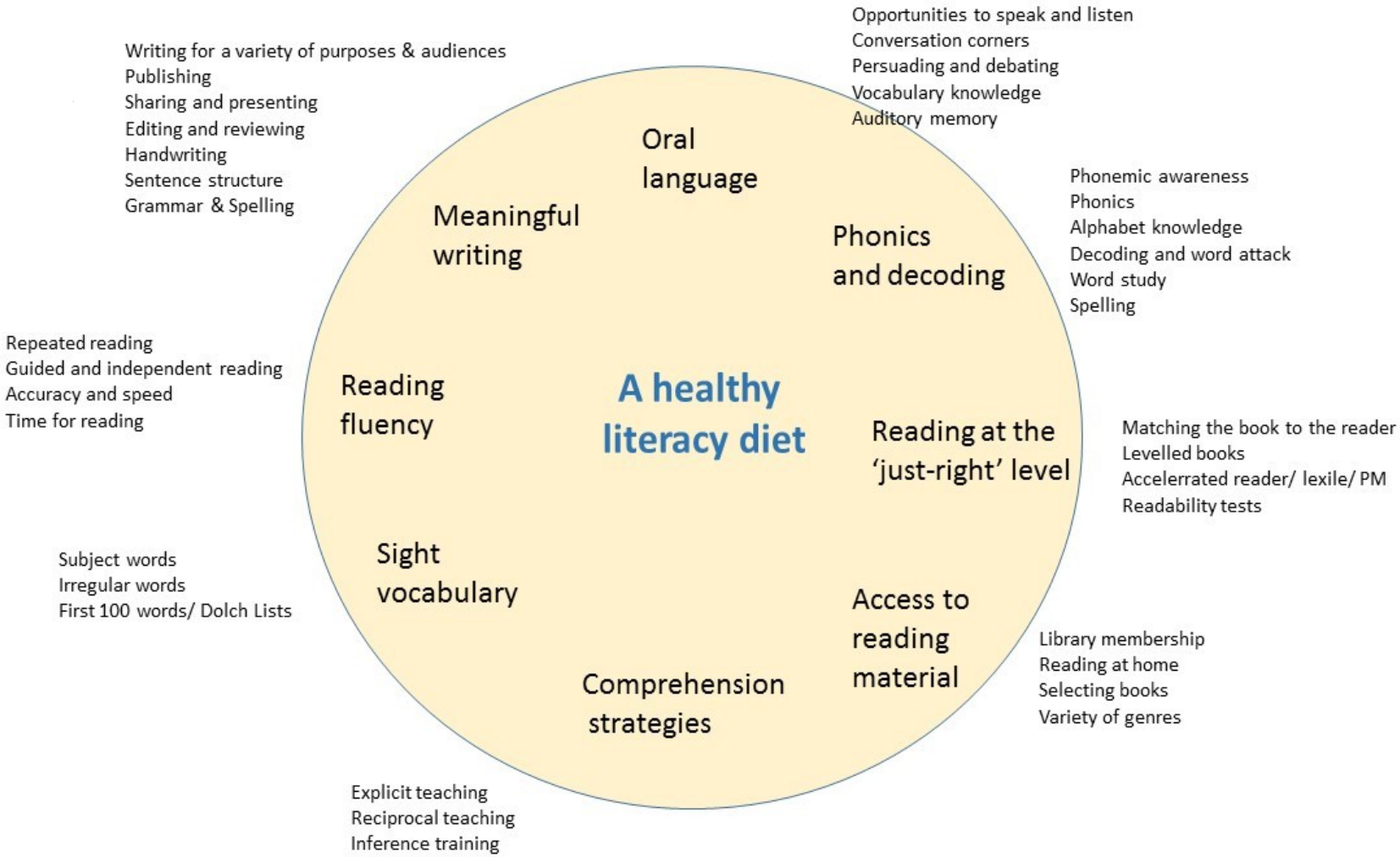
In order to conceptualise this, we have developed a 'healthy literacy diet' model. The healthy literacy diet is, of course, not the same for everyone. A student with a good grasp of oral language will need less work on vocabulary development, while a student with marked difficulties with phonological processing, word reading and spelling will need more work on phonics, decoding and word study.

One of the dilemmas facing teachers who are supporting struggling readers is ensuring that the student gets a broad and balanced curriculum, while also targeting the key areas of need. Children who present with literacy difficulties will benefit from whole-class work and activities, alongside the interventions delivered by the support teacher. In this regard, the 'healthy diet' can be useful, as a way for the class or subject teacher, the special education teacher, the parents and the student to identify which areas will be targeted by whom. Templates of the healthy literacy diet are included in the resources section and can be used and modified by teachers and included in the Student Support File. **Click here to access templates.**

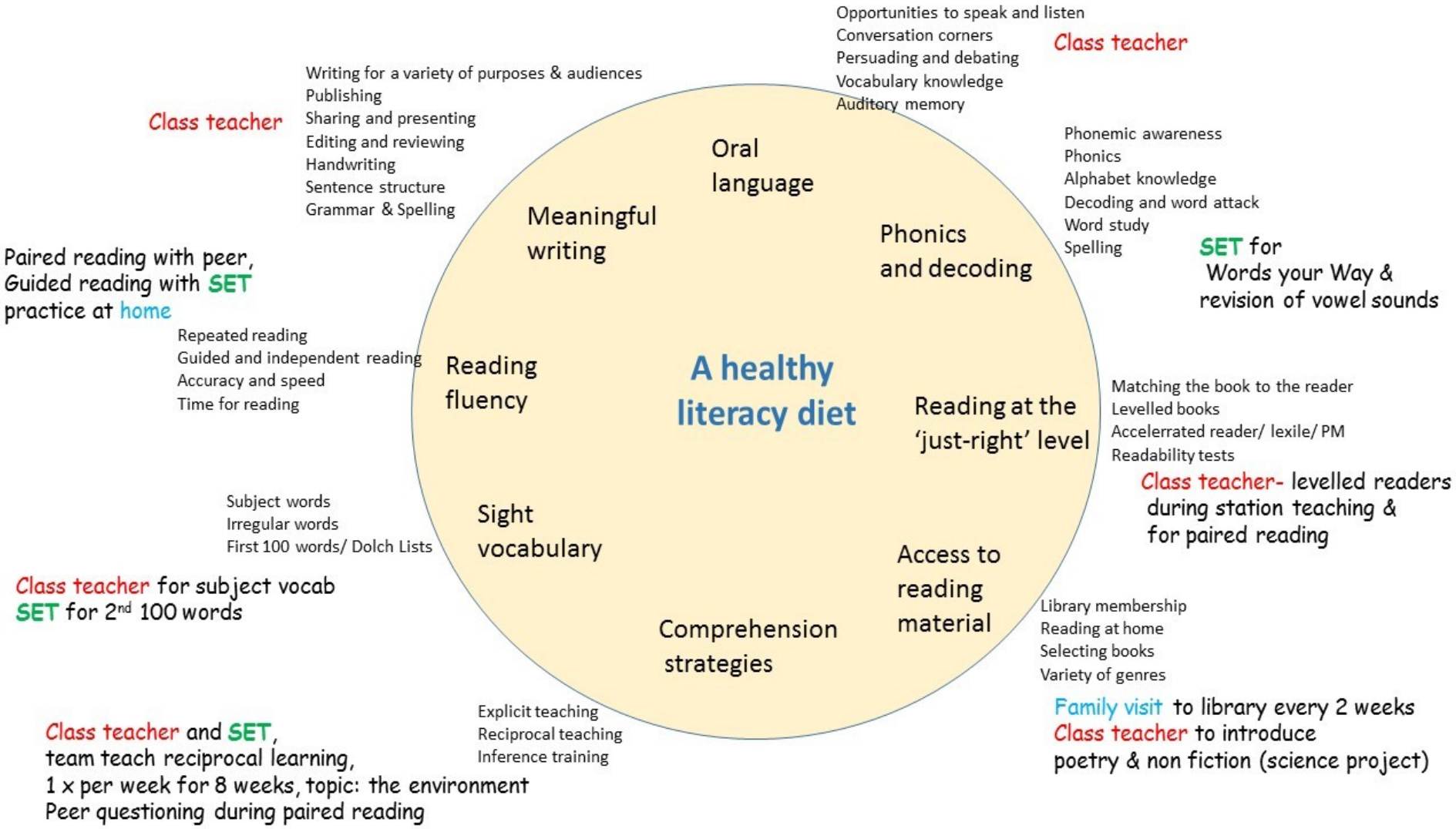
The Healthy Literacy Diet



The healthy diet is expanded on the next page, with more detail about what might be included in some of the elements. It is not possible to provide an exhaustive list and activities will clearly change, depending on the age and developmental level of the student. So the model below should be viewed as one possible example, rather than a definitive template.



An expanded literacy diet, with details of the various elements.



The healthy literacy diet with details of elements and identification of who will deliver which elements. This sample is based on a third class boy. The key areas of responsibility for the class teacher, the special education teacher and the family are highlighted in different colours.

2.3 Emphasis on oral language and vocabulary development

At every stage in a pupil's development, oral language is an important factor in literacy development. In young children, and particularly those from disadvantaged backgrounds, a focus on oral language skills can have benefits for both reading and writing (Educational Endowment Foundation, 2016 & 2017, Kamil et al, 2008).

Snowling and Hulme (2015), cited in Brooks (2016) note that children who respond poorly to literacy intervention tend to have oral language weaknesses and that it is possible to improve oral language skills by interventions focusing on developing listening skills, vocabulary and narrative skills.

Developing vocabulary skills can be particularly effective and this is especially true both for those learning English as an additional language (Baker et al, 2014) and for older students (Kamil et al, 2008). Weak vocabulary skills will particularly impact on reading comprehension and academic vocabulary needs to be taught explicitly and intensively (see also Foorman et al, 2016). Higgins et al (2017) recommend purposeful speaking and listening activities, as follows:

- Reading books aloud and discussing them
- Activities to develop and extend expressive and receptive language
- Collaborative learning where children can share thought processes
- Structured questioning to develop comprehension
- Teachers modelling inference making by thinking aloud
- Students talking through their writing ideas, before beginning to write

In Ireland, research by Lohan (2016) indicates that teaching vocabulary and morphemic patterns to 4th class children for whom English was a second language, resulted in significant growth in both reading vocabulary and reading comprehension. The NBSS (2014(2)) have adapted a Vocabulary Enrichment Programme for use with post-primary aged pupils. This has been evaluated with impressive results for those with the greatest level of difficulty. The Report on this intervention is free to download. http://www.nbss.ie/node/424

The Primary Language Curriculum gives clear progression steps for the development of oral language skills, which will help teachers identify the child's functioning and plan for intervention. There is a focus on learning language in meaningful social contexts, such as play.

3 Progression Steps - Oral Language

Element	Learning Outcome: Number and label	a The child...	b The child...	c The child...	d The child...	e The child...	f The child...	g The child...	h The child...
Communicating	1. Engagement, listening and attention	attends to stimuli, keeps eye gaze and tracks adult's gaze to visually attend to an object jointly. imitates actions and sounds.	attends for longer to interesting or familiar stimuli including: actions, gestures, tone of voice, conversations and stories read aloud, and joins in with rhymes, songs and games.	takes part in conversation using appropriate eye-contact while attending to body language, gestures and tone of voice and uses these cues with context to understand new words/phrases. listens to factual accounts.	listens to new information on an unshared experience including fiction and non-fiction of increasing complexity. listens to and appreciates other languages.	listens to definitions and descriptions using tone, gestures and a few understood words to interpret main messages. attends to textually presented information (books, audio etc).	attends to verbal and non-verbal communication in a variety of contexts and listens to unfamiliar people speaking and modelling new words/phrases attending to the correct pronunciation of same.	gains insight from listening to new information on a wide range of subjects.	listens to information being presented from both sides of an argument.
	2. and 3. Social conventions and awareness of others	responds to and seeks adult attention and recognises, responds to and says own name. responds to stimuli using voice, sounds and gestures and exchanges a smile and uses facial expressions, sounds, gestures, signs or speech to communicate.	takes part in imitative and turn-taking games, rhymes and songs. speaks audibly and coherently at appropriate volume, interacting over a short number of turns with individuals and beginning to communicate readily with others in class. initiates communication with familiar adult.	shares personal anecdotes and responds to conversation on an unshared experience. greets and responds appropriately to greetings and discussion topics showing some appreciation of listener's needs. initiates and takes turns in conversation with peers, small groups and familiar adults.	initiates conversations on an unshared experience. responds to questions but omits some information and begins to make indirect requests. switches style of speaking to suit audience. takes part in small group discussions on a familiar topic showing awareness of listener-speaker rules and is able to list these.	uses appropriate turn-taking, eye contact and body language to contribute to and extend a topic, to build a coherent story or factual account. converses on thoughts and feelings of others and takes part in conversation with an unfamiliar adult adopting appropriate language, style and tone. works in pairs/ groups and participates in and builds upon a group discussion.	adds increased detail for benefit of the listener and uses gestures, expressions and signs where appropriate. recognises the impact of gestures, tone of voice and body language on listeners. works in pairs/ groups and reports the main points of discussion to an audience.	provides enough detail to help the listener understand the context. works as part of a group, establishing each person's role and adapting to it.	presents relevant ideas, organised coherently and omits unnecessary detail. makes polite indirect requests and uses a range of formal and informal terms of address. gathers feedback from others in their group on a group project on an unfamiliar area and reports the main points to an audience.

2.4 Phonemic Awareness, Teaching of Phonics, Decoding and Word Study

Phonological awareness is a continuum of awareness of the sounds of speech, ranging from the ability to discriminate different words in a sentence, to the ability to separate out different sounds within a spoken word. ***Phonological awareness*** *encompasses larger units of sound, whereas* ***phonemic awareness*** *stems from this concept, but refers to the smallest units of sound at the level of letter sounds such as /b/, /sh/ etc*. (IRA, 1998). In terms of phonics, there has been considerable debate about the relative value of synthetic and analytic phonics.

What is the difference between synthetic and analytical phonics?

These are two different approaches to teaching the sounds that letters make. The NCCA provides the following definition: *Synthetic phonics* emphasises a part-to-whole approach, letter by letter phonological decoding; the child learns to sound and blend the sequential letter sounds. Sounds are learned in isolation and blended together (/c/a/t/). In *analytic phonics* the sounds are not learned in isolation but a phonic element is identified from a set of words in which each word contains the particular sound to be studied (e.g. how are these words alike? *pat, park, push, pen*). This is a whole-to-part approach. **Literacy in Early Childhood and Primary Education (p128).** The synthetic approach tends to emphasise the segmenting and blending of sounds early on in reading development, while the analytical approach tends to start with the whole word and break it down.

Decoding usually refers to the skills of alphabetic knowledge (understanding that letters are units of meaning) and letter-sound correspondences (phonics).

It has been argued that using a predominantly synthetic (rather than analytic) phonic approach is most effective (Macmillan, 1997; McGuinness, 1997; Solity et al., 2000; Ehri, Nunes, Stahl and Willows, 2001). The National Reading Panel (NRP) gave a more nuanced interpretation,

suggesting that synthetic phonics had the most impact on those with reading difficulties and those from disadvantaged communities. Torgerson, Brooks and Hall (2006) have argued that both analytic and synthetic phonics approaches are equally valid. There is however, good agreement that the structured and systematic teaching of phonics is most important (Rose, 2006; Torgesen et al., 2006; NRP 2000, Education Endowment Foundation, 2016).

Morris (2015) states, '*Keep in mind that both analytic and synthetic methods should be systematic in nature, ensuing mastery at one conceptual level before proceeding to the next level. Furthermore, whichever phonics approach, if it is to fulfil its purpose (i.e. automatic recognition of basic spelling patterns), will require help in the form of copious amounts of contextual reading at the appropriate difficulty level*' (p505).

One of the most important findings in relation to the teaching of phonics is that ***how*** phonics are taught is important: therefore all staff involved in teaching phonics should have received training and all programmes should be implemented with fidelity, (Education Endowment Foundation, 2016).

Word study is an approach that provides students with opportunities to investigate and understand the patterns in words. While word study is often associated with spelling skills, in the process of learning that spelling patterns exist, students also learn how to apply this knowledge to decoding, which in turn enhances word reading skills.

Take, for example, the difference between "hard c" (as in *cat*) and "soft c" (as in *cell*). After collecting many words containing the letter "c," students discover that "c" is usually hard when followed by consonants (as in *clue* and *crayon*) and the vowels "a," "o," and "u" (as in *cat*, *cot*, and *cut*). In contrast, "c" is usually soft when followed by "i", "e," and "y" (as in *circus*, *celery*, and *cycle*).

The Words their Way teaching and learning resource is a highly structured, evidence-based programme of word study

For some students (those who are deaf or who have significant hearing loss and those with severe auditory processing difficulties) the teaching of phonics is particularly problematic. The following resource is helpful in appreciating the particular needs of deaf students. National Deaf Children's Society, Teaching Phonics

Click below to see Word Study/Word their Way in action

Word Sort

Speed Sort

Blind Sort

Word Hunt

2.5 Learning a Sight Vocabulary

Many struggling readers have phonological processing difficulties (Goswami, 2013, Snowling, 2014) and there is evidence that skilled readers access a store of words or visual patterns when reading. High frequency words are words that occur frequently in text, for example *the, what, this*. Automatic recognition of these words (also called *having a sight vocabulary*) helps students to improve fluency, it also allows them to make use of context clues and focus more on comprehension than on decoding. Many high frequency words have irregular spelling patterns and sounding out these words can be pointless and frustrating. The Teaching Reading Using Games (TRUGS) have a resource for practicing and reinforcing non decode-able sight words in a fun way.

Struggling readers often read less, have less exposure to print and therefore have limited sight vocabularies (Rief and Stern, 2010). The more a student reads, the greater their chances of automatically recognising frequently occurring words. A practical application of this is when a child reads at night to a parent from a graded reader such as the PM scheme. The child is seeing the sight-words they are learning in class, in context. We recommend that teachers teach high frequency words to struggling readers to the point of automaticity. This can often be achieved through precision teaching approaches. See the guidance in the resources section (pages 76-91).

E.W. Dolch created a list of 220 high frequency words. The following websites contain the Dolch list and related activities:

www.quiz-tree.com
www.learningbooks.net
www.dolchsightwords.org

2.6 Explicit Teaching of Reading Comprehension Strategies

Reading comprehension approaches focus on the student's understanding of words, passages and texts. Typically such approaches involve explicit teaching of strategies, such as prediction, self-questioning, clarifying, summarising, identifying key points, use of planners and text organisers etc. Teaching reading comprehension strategies can have a positive impact for students who have difficulty in this area. The evidence of the positive impact of this approach is very extensive (see Education Endowment Foundation, 2016 & 2017, Kamil et al, 2008). Brooks (2016) has reported remarkable progress for the 'Inference Training' approach, across a number of studies.

Of course, reading comprehension approaches are likely to be less effective, if the pupil's primary difficulty is at the word reading level. It is therefore important to carry out careful assessment to identify whether it is word reading and/or vocabulary knowledge and/ or reading comprehension problems which are causing difficulties. Students will need careful modelling of the use of comprehension strategies and a gradual 'release of responsibility' before they can use such strategies independently. Students should be able to read a text comfortably if they are to practice comprehension strategies. The NBSS have developed a range of resources to support the development of comprehension skills, and these are free to download. http://www.nbss.ie/node/164 . A further excellent resource for teaching comprehension strategies at a whole school level is *Building Bridges of Understanding* available from the Mary Immaculate Curriculum Development Unit.

One example of an effective approach to teaching reading comprehension skills is that of Reciprocal Teaching, outlined below. Brooks (2016) reports on 'remarkable' progress for 48 children who had significant comprehension difficulties. They achieved over a year's progress in both reading accuracy and comprehension after a 10 week intervention. Generally, this is an approach best suited to older students (10 years upwards) and students will need a level of oral proficiency to benefit from the approach. Evidence from the Kilkenny project (2018, see Appendix 1) suggests that is can be an effective whole class intervention.

Click here to see the teaching of reading comprehension strategies in action in Presentation secondary school, Waterford

Reciprocal Teaching

Reciprocal teaching refers to an instructional activity in which students become the teacher in small group reading sessions. Teachers model, then help students learn to guide group discussions using four strategies: summarizing, question generating, clarifying, and predicting. Once students have learned the strategies, they take turns assuming the role of teacher in leading a dialogue about what has been read. It is based on two sessions a week for 10-12 weeks.

Why use reciprocal teaching?

- It encourages students to think about their own thought process during reading.

- It helps students learn to be actively involved and monitor their comprehension.
- It teaches students to ask questions during reading and helps make the text more comprehensible.

How to use reciprocal teaching

Put students in groups of four. Distribute one note card to each member of the group identifying each person's unique role: *Summarizer, Questioner, Clarifier, Predictor*

Have students read a few paragraphs of the assigned text selection. Encourage them to use note-taking strategies such as selective underlining or sticky-notes to help them better prepare for their role in the discussion. At the given stopping point:

- The *Summarizer* will highlight the key ideas up to this point in the reading.
- The *Questioner* will then pose questions about the selected text: unclear parts, puzzling information, connections to concepts already learned.
- The *Clarifier* will address confusing parts and attempt to answer the questions that were just posed.
- The *Predictor* can offer predictions about what the author will tell the group next or, if it's a literary selection, the predictor might suggest what the next events in the story.

Throughout the process, the teacher's role is to guide and nurture the students' ability to use the four strategies successfully within the small group. The teacher's role lessens as students develop their skills. Video demonstration of the approach is available here: http://www.readingrockets.org/strategies/reciprocal_teaching (With thanks to Catherine Canney) See also NBSS resources on Reciprocal Teaching http://www.nbss.ie/node/221

For students with the greatest level of need, Assistive Technology may be needed to ensure that the student has access to reasonably fluent text reading. A programme that 'reads' text to the student, allows the student to concentrate cognitive resources on understanding the text.

2.7 Meaningful Writing Experiences

Sometimes, writing experiences for those who struggle with literacy are based on derivative worksheets, with students having minimal input into writing for meaningful purposes. Education Endowment Foundation (2017) state that there is extensive evidence to support the teaching of writing composition skills through modelling and supported practice. They identify seven components within this:

- Planning
- Drafting
- Sharing
- Evaluating
- Revising
- Editing
- Publishing

These skills need to be taught explicitly and modelled for students, who can then practice the skills, with appropriate feedback.

Writing development moves through stages from symbolic drawings to independent expression and younger children need to be encouraged to illustrate and draw and 'have a go' (this aspect of writing is well-catered for in the Primary Language Curriculum).

In order to be able to compose meaningful written passages, students need to develop adequate handwriting and spelling skills. Practice is crucial to the development of a fluent script. Teachers should be particularly mindful of those who have difficulty with letter formation, or who produce handwriting at a very slow rate. For some students, access to word processing facilities may be more appropriate, due to co-ordination or other physical difficulties.

Spelling skills are often problematic for struggling readers, particularly those who have dyslexia. Teachers need to use a range of strategies to teach spelling skills- expectations about memorising words, or using *Look, Say, Cover, Write Check* are not enough. Students need to be taught common digraphs, how to identify patterns of spellings in words, how to use prefixes, suffixes and root words and learn common spelling rules. These activities are central to the 'word study' approach outlined previously in Section 2.4.

2.8 Development of Fluent Reading (Opportunities for Guided & Independent Reading)

Automaticity in reading refers to the ability to read without occupying the mind with low level detail of the task (such as sounding out), so that it is an automatic response pattern. This is typically achieved as the result of learning, repetition and practice. A difficulty for many students with emerging literacy skills is that the pace of teaching moves too quickly for them: they move on to new skills before emerging skills have been consolidated and developed to the point of automaticity. Working memory is also over-loaded by the demands of sounding out.

Teachers will want to ensure that students reach a point of automaticity in learning, before moving on to the next steps. This means checking that they have achieved speed and accuracy in the key skill area. Teachers will also want to offer learning activities where students can achieve high levels of success. We recommend that students should be achieving 95% success with accuracy.

Fluent reading refers to the ability to read orally with speed, accuracy and proper expression. The NRP (2000) point out that '*fluency is often neglected in the classroom'* (p11), but found that strategies that increase fluency have a positive impact on reading and particularly on reading comprehension. The most commonly used strategy to improve reading fluency is the reading and rereading of familiar texts. Opportunities to read aloud, with guidance from teachers, peers or parents, are also associated with the development of fluent reading. The value of daily reading aloud is also supported by Lingard (2005) and Foorman et al (2016). The Education Endowment Foundation (2017) specifically recommend:

- Guided oral reading (where the teacher models fluent reading of text, then the pupil reads the same text aloud, with appropriate feedback).

- Repeated readings- where students read and reread a short and meaningful passage a set number of times, or until they reach a suitable level of fluency.

2.8.1 Components of Guided Reading

- Teacher works with 4-6 students in each group
- Levelled/banded readers and multiple copies of these readers are provided
- Children grouped according to similarities in reading development and instructional reading levels
- Teacher introduces/consolidates strategies and concepts to support independent reading
- Every child reads and is supported by teacher

Student reading fluency is enhanced by reading and rereading familiar texts and reading aloud.

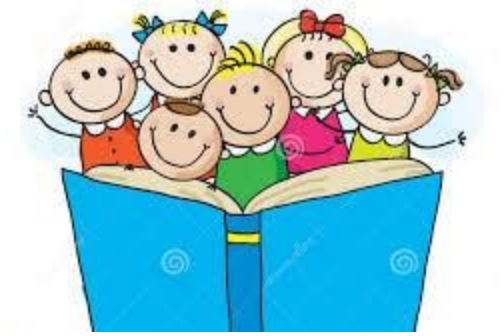
The development of reading skills should include **informal reading activities**. In more informal reading activities, the focus in more on pleasure and interest and therefore may be less stressful activities for those who struggle with literacy. Accordingly, they should be part of the core work done with such students. Informal reading activities can include listening to reading and talking about the meaning and interpretation of text and illustrations with others. The Primary Language Curriculum refers to the importance of such activities under the outcomes *Engagement* and *Motivation and Choice.*

2.8.2 Reading Aloud and Well-Being

Reading aloud can allow students to practice the skill of expressive reading, (comprising all of the variables of timing, phrasing, emphasis, and intonation). However, for some students with reading difficulties, being asked to read aloud can be highly stressful, distressing, shaming and humiliating. For these students, reading aloud does nothing to improve their skills, as their emotional energy is consumed by decoding and they typically fail to attend to the meaning of what they are reading. For these reasons, it is recommended that:

- Students are not asked to read aloud from unfamiliar texts, unless they volunteer to do so
- Students who are made anxious or distressed by reading aloud in the class setting, are given opportunities to read aloud in smaller settings (learning support, small group, one to one)
- Students are presented with text which is at the 'just-right;' level for them
- Teachers may wish to use the reading buddies system, as outlined overleaf

Reading Buddies



For use in classrooms when students are expected to read aloud.

Ask the student to name someone as his/ her reading buddy
When the student is stuck on a word, the reading buddy helps
If neither student can read the word, the teacher provides it
For those with severe difficulties (including those new to the English language) the buddy can read aloud in a quiet voice, and the target student can echo the reading in a louder voice.

Benefits of using a reading buddy approach:

Everyone can take part

Self-esteem is protected

It builds a collaborative and supportive classroom environment

Students are more comfortable accepting correction from a peer than from a teacher

It doubles the number of students actively engaged with reading aloud in the classroom at any one time.

Students with social anxiety or marked reading difficulties should not have to read aloud, unless they volunteer to do so.

2.9 Reading at Just-the Right Level

In order for pupils to develop reading fluency and confidence, they need to be reading at the 'just-right' level. This is the level at which frustration is avoided, but there is enough challenge for the pupils to be learning new skills and making progress. Sometimes this is described as the 'Learning Level', and it sits between the Frustration Level and the Independent Level. Ehri et al (2007) reported that improvements in the reading of those who struggle and who received individualised support was primarily explained by one key factor- reading texts at a high level of accuracy, between 98% and 100%. Allington (2013) notes that struggling readers rarely get the opportunity to access texts at this level. It should be noted that reading at the just-right level is a key feature of Literacy Lift-Off (See Section 5).

Click here to hear Lucy Gannon (NEPS) talking about reading at just-the-right level.

One approach to identifying the child's reading level is to complete a **miscue analysis.** This involves using a running record. Not only is the running record a way to identify reading rate and reading accuracy, it also is a way to assess reading behaviours and identify reading behaviours that need support. A further tool in matching text to the just-right level is to consider **readability level.** Readability is the ease with which a reader can understand a written text. The readability of text depends on its content (the complexity of its vocabulary and syntax) and various formula are available to calculate the readability of content, including the Flesch-Kincaid and SMOG tests. These typically measure word and syllable length and sentence length and give a generalised score. In post-primary schools, the readability of class text books is often an issue for struggling readers and applying a readability formula can help schools identify the extent of the challenge.

For some students the just-right level is a level that gives a reading age much younger than the student's chronological age and it can be a challenge for teachers to identify texts that are age appropriate. This is particularly important for teenagers, who are unlikely to want to read books that they perceive as 'babyish'. High-Low books, which have a high interest level and a low reading level are now increasingly available. Many commercial companies have dedicated 'high-low' series with content that is more appealing to older students, yet text at a level that is accessible to struggling readers.

There are two commercial systems for matching text to the 'just-right' level for students and they are described in more detail in the Appendices section.
Appendix 11 The Lexile Framework
Appendix 12 Accelerated Reader

2.9.1 PM Readers

The Ribgy PM Readers is a collection of highly structured levelled readers, with 30 levels and up to 10 core books at each level. This provides a fine gradient for ample reading at the 'just-right' level. The PM collections is not just graded according to decodable phonics, but word control, natural syntax, and pictures that support meaningful narrative. This means that readers can read for meaning and use syntactic and semantic cues to cross-check their understanding and self-regulate the reading experience. PM readers are often used in Reading Recovery and Literacy Lift-Off. Access to levelled readers was a key feature of the successful programme of intervention devised by Kennedy (2009), who reported,

'*This was hugely significant in building children's confidence, persistence, motivation and engagement and in helping them to develop a personal taste in reading'*. (p60).

2.10 Access to a Wide-range of Reading Material

Research supports the common-sense view that children who have more books in the home will read more. Schools play a critical role in terms of access to good quality books. Children will benefit most when books are "on-display" and physically accessible. It is also important that the children are allowed to borrow books to take home. Therefore schools (and DEIS schools in particular) need to:

- Have a classroom library with at least 15 books per child
- Have a well-stocked school library (with adults available to match children to suitable texts)
- Have libraries stocked with popular books that attract children and young adults
- Continuously update stock
- Encourage active participation in the community library
- Offer a range of books at different levels of difficulty

It is important to give children exposure to different genres of text. There is a tendency for teachers of young children to allow narrative stories dominate over other material but children with limited exposure to informational text will be disadvantaged, when they are required to read this type of material. High quality, non-fiction texts will provide children with;

- Background knowledge on various subjects: dinosaurs, trucks, insects, etc.
- Specialised vocabulary
- Examples of sequences or steps, e.g. from tadpole to frog etc.
- Opportunities to compare and contrast

2.11 What about Teenagers?

It is often thought that teenagers who have literacy difficulties are particularly difficult to help, as their difficulties are likely to be entrenched, relatively unresponsive to intervention and motivation is likely to be diminished (Joseph, 2008). The What Works Clearing House publication: Improving Adolescent Literacy (2008) identified three key components of literacy interventions with a strong level of evidence for this age group:

- Provide explicit vocabulary instruction
- Provide direct and explicit comprehension strategy instruction
- Make available intensive and individualised interventions for struggling readers that can be provided by trained specialists. See Kamil et al (2008)

Irish research also indicates that the availability of resources and materials, and appropriate professional development for teachers are key issues for those working to help struggling readers in the post-primary setting (Mary Immaculate College, 2015).

2.12 Summary of Section 2

- **Offer students a well- balanced diet of literacy activities**
- **Recognise that language development is vital to reading development and focus on vocabulary instruction**
- **Ensure that Phonemic awareness and phonics are taught explicitly and systematically**
- **Consider 'word study' approaches, particularly for those with spelling difficulties**
- **Teach a sight-vocabulary (to the point of fluency)**
- **Model, teach and practice reading comprehension strategies**
- **Offer students meaningful writing opportunities**
- **Encourage fluent reading through guided and independent reading**
- **Ensure that students have opportunities to read for pleasure**
- **Make sure students are reading at the 'Just-Right' level**
- **Ensure access to a wide range of reading materials, across multiple genres**

Section 3 Organising for Effective Teaching

3.1 Structured Teaching

When it comes to failing readers, ordinary class teaching is not enough and specialist interventions are required (Kamil et al, 2008, Brooks, 2016; Singleton, 2009. Education Endowment Foundation, 2016, & 2017). Structured specialised tuition for failing readers is more effective than eclectic approaches (Swanson and Hoskyn, 1998). This is not to suggest that there should not be a balanced approach to the various elements of a literacy curriculum (see Section 2) but to emphasise the importance of targeted teaching that is structured, explicit and systematic. Such teaching can involve the purposeful use of a range of strategies.

The NRP report (2000) repeatedly refers to the effectiveness of systematic approaches, particularly in the teaching of phonology. Singleton (2009) emphasises the need for '*instruction that is systematic and intensive'* (p8). Singleton goes on to define systematic teaching more closely as, '*structured, cumulative and sequential'* (p20). Lingard (2005) also argues for '*clearly focused intervention'* (p75) and demonstrates how this can be done for students starting post-primary school with low attainments.

Once an evidence-based programme is selected, it should be taught with fidelity. A highly structured, systematic approach has been found to be the most effective.

3.2 Small Group or 1:1 Tuition

Another consistent finding is that, for struggling readers, small group settings and individual tuition is more effective than larger groups (Swanson and Hoskyn, 1998; Vaughn, Wanzek and Murray, 2012; Scammaca et al, 2007; Eurydice Network, 2011, Higgins et al, 2015, Education Endowment Foundation, 2016). For example, in reviewing European practices, Eurydice concluded that '*Individual or small-group intensive instruction by reading specialists is essential when tackling reading difficulties*.' (p14).

The largest size of an effective teaching group, has been found to be two to four students (Vaughn et al, 2012). They also suggested that such small groups may be as effective as a one to one model, if the teacher is highly qualified. However, Singleton (2009) suggests that teaching can be effective in groups of up to four or five students, even when instruction is provided by non-teachers (as long as they are adequately trained). There is good agreement that groups of more than five are less effective, for example, Education Endowment Foundation (2016): *'Once group size increases above six or seven there is a noticeable reduction in effectiveness'.* (p22)

Education Endowment Foundation (2016) state, '*On average, it is a case of the smaller the group, the greater the impact: groups of two have slightly higher impact than groups of three, but slightly lower impact compared to one-to-one tuition'*. (p22).

Small group teaching is sometimes associated with withdrawal approaches (see the discussion in section 3.3). However, small group teaching can take place within the classroom, particularly if there is a team teaching approach or station teaching. Additionally, peer tuition, which can be delivered in-class, is also an effective approach. Slavin et al (2008) emphasised the importance of peer tuition approaches, particularly with teenagers. It is noted that many of the highly effective intervention programmes reviewed by Brooks (2016) are delivered in one-to-one or small group settings. An exception that is worth mentioning, is the ARROW programme, a computer based intervention that appears to be effective with teaching groups of five, Brooks (2007).

One way of thinking about organising teaching is to consider the NEPS Continuum of Support approach, where most students have their needs met within the main class group (Support for All/ Classroom Support). Those with some level of additional need have their needs met with small group and targeted support (Support for Some/ School Support) and those with the greatest level of need, requiring the most intensive support, receive more individualised support (Support for a Few/ School Support Plus). See NEPS Continuum of Support.

Some schools may need to rethink the arrangements for supporting students with reading difficulties. At present, there is evidence that teaching of reading in groups of more than 4 or 5, is a less effective approach to the teaching of reading.

The above discussion about the size and form of effective teaching groups, does not detract from our message that it is the class or subject teacher who has overall responsibility for the development of the student's literacy and support programmes should complement work already happening in the regular classroom.

3.3 Withdrawal or In-Class Support?

In the past, withdrawal was often seen as the most appropriate way of targeting struggling readers, particularly when the tuition they needed was significantly different to what was being delivered in the mainstream classroom. Given the information about the need for one-to-one or small group tuition in Section 4.2 above, it is likely that a withdrawal model will continue to be the appropriate model for many students.

However, with the development of station teaching approaches (also known as small group teaching/instruction) such as used in Literacy Lift-Off and Guided Reading, it appears that in-class support can also be effective, particularly for younger children. Equally, where reading comprehension skills are being taught, for example, through reciprocal teaching strategies, it is possible for this to happen in the mainstream classroom. The DES Inspectorate report on effective teaching of literacy and numeracy in DEIS schools (DES, 2009) noted that, '*significantly, most of these schools have moved away from the practice of withdrawing pupils from the mainstream for supplementary learning support'* (p99).

'Withdrawal or in-class support?' is perhaps the wrong question. It may be more helpful to consider, 'What format will best suit the delivery of the intervention that is needed for this student?'

3.4 Frequency and Duration of Intervention

The frequency of teaching inputs is important to educational success. Scammacca et al. (2007) argue for daily or near daily teaching sessions, as does Lingard (2005). Solity and his colleagues argued that practice of new skills should be distributed over time rather than massed into a particular time (Solity et al., 2000). Therefore, daily practice of 10 minutes (practice distributed throughout the week) is more effective than one hour of practice delivered in a block (massed). Vaughn et al (2012) suggest that '*shorter-duration interventions, several times a day, can better capitalize on young students' attention and interest'*. Rose (2009) also supports the concept of *'little and often'* (p14) and this is further supported by Education Endowment Foundation (2016 & 2017) who note that intervention sessions should be brief and regular and should be maintained over 6 to 12 weeks. Gersten et al (2009) give a more nuanced account, suggesting those at Tier 2 level of intervention (literacy difficulties that require some support) receive tuition three to five times per week, for 20 to 40 minutes, while those at Tier 3 level of intervention (entrenched difficulties, which have not responded to Tier 2 interventions) receive intensive instruction on a daily basis.

Additionally, it has been found that the duration of an intervention is not necessarily associated with positive outcomes. In fact, interventions that are of short duration, but intensive, may offer the most efficient approach, (Vaughn et al, 2012; Brooks, 2016). Brooks cautions about the need to carefully monitor the effects of interventions that last longer than one term. Interestingly, Singleton (2009, citing Truch, 2003) suggests that '*the rate of gain may decelerate quite rapidly for intensive interventions after the first 12 hours of intervention'* (p50). Again, this suggests that intensive interventions may deliver effective remediation within a relatively short time span. Vaughn et al (2012) note, '*interventions of up to 20 weeks may be sufficient to allow many early elementary students to make substantial gains in their reading outcomes, an important finding, given the limited resources of schools.*' (p23)

Short, intensive bursts of intervention, with daily, targeted support, appear to be more effective than longer term interventions. Therefore teachers may need to think of their work in half- term or 6 to 12 week blocks.

The NEPS Student Support File should be used to document the interventions used, the monitoring and reviewing of interventions and records of progress. After a period of intervention, the student may need to move to a different stage of support. Evidence from the Waterford and Kilkenny Projects (see Appendix 18) indicate that a reasonably short (3 month) block of high quality intervention typically leads to students making significant progress, with many students subsequently needing lower levels of support. Click here to learn more about using the Student Support File.

3.5 Computer Assisted Learning

The NRP (2000) noted that computer assisted learning has considerable potential, particularly word processing approaches, as reading and writing activities can be integrated. The provision of speech to computer-presented text was also considered 'promising'. Slavin et al. (2008) suggested that computer based learning was not so effective, unless it was combined with other methods. Singleton (2009) reported that computers can be used to enhance motivation, but that the impact of computer assisted learning varies from study to study and small-scale, carefully targeted programmes, particularly those with speech-feedback, can have a significant impact. The message about the use of computers to assist literacy is that they need to be used judiciously, in focused and structured ways (see also Shanahan 2005, Higgins et al 2017). New developments in technology, including APPs for reading, need to be carefully evaluated.

The DES Digital Strategy for Schools: Enhancing Teaching, Learning and Assessment (2015-2020) includes reference to the ways in which digital technologies can support inclusion and can be used in a meaningful ways to assess, teach and learn.

Computer-based interventions may have potential, but need to be carefully targeted.

Assistive Technology can be important in supporting students to access reading materials that would be impossible for them to access without the technology, such as magnifiers, screen reading software, distance cameras and listening devices. Students with severe dyslexia, which proves resistant to intervention, can benefit from voice activated software to help them record 'written' work. A full review of these supports is outside the scope of this document. The NCSE document Assistive Technology/ Equipment in Supporting the Education of Children with Special Educational Needs- What Works Best (2016) gives guidance in this matter.
http://ncse.ie/wp-content/uploads/2016/07/NCSE-Assistive-Technology-Research-Report-No22.pdf

3.6 Motivating and Engaging Students

Guthrie, McRae and Lutz-Klauda (2007) noted that readers who are motivated view literacy as both useful and valuable and therefore read widely and frequently. The following approaches are recommended:

- Make literacy experiences relevant to students' interests, everyday life and to current environmental events. (sometimes known as the 'language experience' approach)
- Provide a positive learning environment that promotes student autonomy in learning.
- Allow choice. Empower students to make decisions
- Build strategies such as goal setting (asking students to set their own targets), self-directed learning and collaborative learning
- Give feedback that is motivational but not controlling. The best type of feedback is informational feedback that conveys realistic expectations, and links performance to effort. It is better to praise students for effort rather than to praise for ability
- Give the students opportunities to engage in meaningful reading and writing activities, including reading their own and peers' work
- Offer students access to a wide range of high quality reading material

To learn more about the Language Experience Approach, click here.

Choice in the selection of reading materials is an important way of increasing motivation and indeed 'motivation and choice' are identified as key factors in the Primary Language Curriculum in both reading and writing.

There is some evidence that encouraging students to make positive declarations about their own literacy achievement can have a positive impact of reading success. (MacKay, 2007) This approach may have considerable potential and it has the advantage of being cost-free and easily implemented. MacKay (2006) found that those involved in making positive declarations benefitted in terms of achievement, but also in terms of positive attitudes to reading, motivation and confidence. Further advice about how teachers can use language in the classroom to motivate students and alter student self-perception can be found in *Choice Words: How Our Language Affects Children's Learning,* by Peter Johnston (2003).

Positive declarations are free, take very little time and have the potential to make a significant difference to students' reading skills.

Click here to access guidance on
The use of positive declarations in the classroom

Click here to see positive declarations in action in
Glor na Mara, National School, Tramore

Of course, success in literacy can unlock the broader curriculum and can support a student in achieving his/ her potential in school and in life. This is, in itself, motivating and leads to better engagement of students and is likely to have beneficial effects in self-efficacy and well-being.

3.7. Effective Reading Instructors

As well as considering the importance of *what* to deliver, it is worth considering *who* is best placed to deliver effective interventions for struggling readers.

3.7.1 Teacher Training and Supporting Teachers

The importance of teacher education (both initial teacher education and continuing professional development) is another consistent finding of the research (NRP, 2000; Kennedy, 2010; Eurydice Network, 2011, Higgins et al 2016). As Hall and Harding (2003) say, '*Many curriculum approaches and packages have been found both to work and to fail: what seems critical is the skills of the teacher*' (p1). The NRP (2000) reported that '*in-service professional development produced significantly higher student achievement*' (p17). Slavin et al. (2008) found that extensive professional development of teachers produced significant results. Not surprisingly, the first recommendation of the Rose Report (2009) was that there should be further investment in the training of specialist teachers to assist students with literacy difficulties.

There is research to indicate that the quality of the relationship between the student and the teacher, particularly in support settings, is a significant factor in programme outcomes (Barret and Varma, 1996). For example, an important feature of the successful Reading Recovery approach (Clay, 1993) is the development of the relationship between the student and teacher. Additionally, the acquired professional development and expertise of teachers should be taken into account by the principal when allocating teaching responsibilities, in order to ensure that students with the greatest needs are supported by teachers who have the relevant expertise and who can provide continuity of support.

Click here to see the importance of the relationship between the teacher and the learner in action in Presentation secondary school, Waterford

Teachers are central to the delivery of effective teaching of reading. They need to be well-trained (initial teacher education and continuing professional development), well supported and to have positive relationships with the students.

Sources of Support for Teachers

There are a range of services offering support to teachers in terms of continuing professional development. These include the

Professional Development Service for Teachers (PDST)
NCSE Support Service (National Council for Special Education Support Service)
Education Centres (Association of Teacher Education Centres of Ireland)
NEPS (National Educational Psychological Service
JCT (Junior Cycle for Teachers)
NIPT (National Induction Programme for Teachers)

See Appendix 13 for more information about each of these services

3.7.2 Non-Teachers Delivering Programmes

There is evidence that non-teachers (classroom assistants, para-professionals, parents and community volunteers etc) who are well trained and have on-going support can deliver effective reading programmes (NRP, 2000; McKay, 2006; Scammacca et al., 2007; Slavin et al., 2008; Lingard, 2005, Education Endowment Foundation, 2016). In many jurisdictions, classroom assistants in particular have been found to be able to deliver reading interventions effectively, although, on average, the impact is lower than when delivered by a teacher (see Education Endowment Foundation, 2016 & 2017). Additionally, it is difficult to generalise from various studies as the qualifications, training, and supervision given to such assistants may vary considerably. As Education Endowment Foundation (2016) state, '*what matters most is not whether TAs are delivering interventions, but how they are doing so. In this context, structured evidence-based programmes provide an excellent means of aiding high-quality delivery*. p230

In the Irish context, Teaching Assistants are not available and the role of the Special Needs Assistant (SNA) is not comparable, as their role does not include teaching duties. The NCSE have recently published the Comprehensive Review of the Special Needs Assistant Scheme (NCSE, 2018) and have recommended various changes to the role and indeed the job title (to Inclusion Support Assistant). Depending on the adoption of the recommendations in this NCSE Policy and Advice Paper, the role of the Inclusion Support Assistant may be further clarified.

Community volunteers can make an impact and the Business in the Community organisation in Northern Ireland has successfully evaluated the *Time to Read* programme there since 2003. This programme involves an adult volunteer meeting on a weekly basis with two children. Importantly, the children are identified by the class teachers (with parental consent) and the reading materials are selected by local authority literacy advisors. The programme now operates in 130 primary schools in Northern Ireland and has been found to have a statistically significant impact on literacy skills, '*comparable with leading international interventions'* (p55, Centre for Effective Services, 2016).

SUAS (a charitable voluntary group, have also evaluated the use of community volunteers in raising reading standards in Irish DEIS schools, primarily using a paired reading approach, and have documented significant gains for participants (unpublished data, 2017), see Section 5, for details of data submitted.

As the Centre for Effective Services (2016) points out, '*Trained volunteers can be a helpful resource in school settings where structured literacy programmes are being delivered to struggling readers who do not meet requirements for more intensive, formal learning supports'* (p78).

Other members of the school community, such as volunteers can deliver highly effective reading programmes, <u>IF</u> they are well trained and supported, and are following an evidence-based intervention.

3.7.3 Tapping into the Power of Parents

Parental involvement leads to positive outcomes for students, especially so for younger students (Education Endowment Foundation, (2017), Centre for Effective Services (2016), Department of Education (2009)). Shiel, Evers, Perkins and Cosgrove (2005) recommended that schools should make significant efforts to help parents in developing their children's language and literacy skills. If we look at the healthy curriculum diet there are some elements which lend themselves better to the parents' role, for example reading books to young children in an interactive way, listening to their child read from a graded reader, paired reading at home, functional reading and encouraging library visits. On the other hand, some elements, such as phonemic awareness training and word attack skills, should be more teacher-led activities.

Research shows that there seems to be a consensus that parents want to help their children at school but may not know how best to do this. In schools that are situated in areas of economic and social disadvantage, some parents may feel unable to become actively involved due to their own lack of reading confidence and/or reading competence and yet, parental involvement may be particularly important for their children (see National Economic and Social Forum, 2009). One way to increase parent involvement in reading instruction is to train parents to tutor/help their children and implement effective reading interventions.

The Eurydice Network Report (2011) into European practices noted, that providing advice and training for parents to read aloud to their children is not enough. They state, '*research evidence indicates that this is not enough, and that effective literacy programmes should also help parents learn how to teach their children specific literacy skills*.' (p15). The Australian Committee for the National Inquiry into the Teaching of Literacy (DEST, 2005) also recommended that programmes, guides and workshops be provided to parents/carers to support their children's literacy development.

Rochford, 2016, in a review by the Centre for Effective Services, noted that when engaging parents, '*Often a key feature … was the delivery of parent training sessions within the school buildings, thus improving accessibility and connectedness between school and home*.' (69).

While parents may need support to help their children, reading for pleasure and interest is central. Parents are perhaps best placed to provide adequate individual time for enjoyable reading and to help their children select books of interest to them. There is a danger that if parents focus on very particular skills, time spent on these skills may be a chore, whereas reading together for pleasure can be more beneficial and satisfying for both parent and child.

Parents and teachers may have anxieties about working with each other. Teachers may be uncertain about what role parents can play. Some parents may have memories of school which make them uncomfortable relating to teachers. Most such problems are surmountable and are worth overcoming because of the influence that parents can have on the development of their young person's literacy skills (Hall and Harding, 2003; Sénéchal and LeFerve, 2002; Persampieri, et al, 2006).

Involving parents in their child's development of literacy and language skills has positive outcomes for children. Parents may need support on how best to support their child with reading; following text, asking questions about the text, noticing letter-sound patterns, rhyming words. Teachers/school may need to consider demonstrating to parents some of the above skills. See also www.helpmykidlearn.ie , a resource from the National Adult Literacy Agency.

3.7.4 The Role of Public Libraries

In Ireland, we have a network of 330 library branches and 31 mobile libraries across 31 local authorities. Library users can access over 12 million books through the national catalogue and stock delivery service. However, with only 16% of the Irish population making use of local libraries, there is clearly room for greater engagement. Introducing struggling readers to the library system is an important and valuable means of developing literacy skills.

All public libraries are engaged with the *Right to Read Campaign* (2014), which was developed to provide a nationally coordinated framework for literacy support and development through all local authorities in line with the Programme for Government (2011-2016):

Local authorities will be supported in developing Right to Read campaigns involving community supports for literacy, from within existing budgets such as more spacious housing, longer opening times for libraries, homework clubs and summer camps that improve literacy through sport and games.

The *Right to Read Campaign* looks to complement and support existing programmes and initiatives including Delivering Equality of Opportunity in Schools (DEIS), providing continuity and reinforcement outside of formal education, supporting children, parents and adults with low levels of literacy.

Our Public Libraries 2022 (2018) is the latest government strategy for public libraries. 'Reading and Literacy' is one of three strategic programmes for service development. The new strategy seeks to bring structure and consistency to the library's role in supporting literacy and to build

on the work started under the *Right to Read* literacy initiative. To learn more about the new library strategy click HERE

Public libraries have a significant role to play in supporting the development of literacy skills. The *Right to Read Campaign* has a particular focus on struggling readers. Special education teachers should routinely liaise with their local library and all struggling readers should be encouraged to join and become active in their local library.

3.7.5 Co-operative Learning and Peer Support

There is good evidence, from a range of sources, that co-operative learning and peer support are effective approaches to the teaching of reading (Topping, 2016). One, well-documented area of co-operative learning, is Paired Reading. In evaluating interventions that are effective, Brooks (2016) notes that Paired Reading has been comprehensively evaluated in many studies. It is both cost-effective and accessible. Vaughn et al. (2000) found that using a student with a reading difficulty as a cross age tutor is the most effective form of peer reading and peer reading is generally a highly effective intervention. In the Irish context, Nugent (2001) found this approach to be effective with children attending a special school for children with mild general learning difficulties and Lohan (2017) found that the approach can be effective with those with social, emotional and behavioural difficulties (See Section 5 for details of these studies). Therefore, teachers may find it useful to deploy peers, both in co-operative learning endeavours and in peer tutoring approaches.

Click here to download advice about organising a peer reading scheme
The Rough Guide to Reading Partners

For adolescent readers, co-operative learning may be particularly important (see Joseph, 2008). Slavin et al. (2008) reported, '*This review found that most of the programs with good evidence of effectiveness have co-operative learning at their core. These programs all rely on a form of cooperative learning in which students work in small groups to help one another master reading skills…*' (p31).

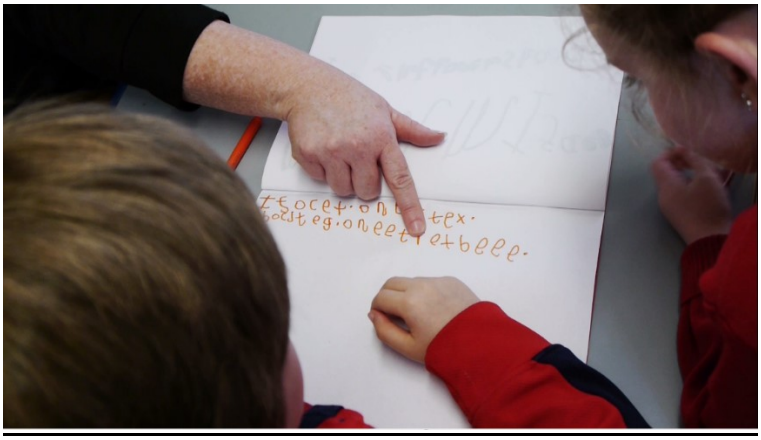
Co-operative learning and peer support are effective approaches to the teaching of reading and may be particularly helpful when working with adolescent struggling readers. They are cost-effective approaches and cross-age peer tutoring has a strong evidence base.

3.8 Summary of Section 3

On the basis of this evidence, we suggest that teachers might…

- **Focus on a structured programme of work**
- **See students individually, in pairs or in groups of no more than 3**
- **Rethink your timetable (to maximise frequency of teaching and focus on short intensive periods of tuition)**
- **Offer daily teaching sessions (or even twice daily sessions)**
- **Emphasise short-term, intensive intervention (no longer than one term)**
- **Monitor and review your work**
- **Motivate and engage students by offering choice and pleasurable reading experiences**
- **Consider using positive affirmations to enhance learning**
- **Avail of professional development opportunities**
- **Access teacher support services**
- **Consider deploying peers and volunteers and other 'low-cost implementers'**
- **Involve, advise and support parents so that they can nurture the development of their child's reading skills**
- **Make links with the local public library and encourage struggling readers to be active members of the library**
- **Foster co-operative learning, including cross-age peer tutoring.**

Section 4 Assessment and Measuring Progress



4.1 What is the Purpose of Assessment/ Screening?

Perhaps the most important step in any testing or screening is to be clear about the purpose of that assessment. Those seeking an assessment should ask themselves the question: *What is the purpose of this assessment? What will be different after the assessment is completed?* Below are some of the common purposes of assessment. A single assessment may address more than one purpose. **How the test is used is of critical importance.** Even the results of a word reading test can be used in very different ways: to compare to class norms or national norms, to monitor or document progress over time, to diagnose particular difficulties, to evaluate knowledge of certain criteria, to inform research etc. Often, teachers are assessing a student or a group of students so as to identify their needs and to place them along the Continuum of Support, so that they can plan a targeted intervention.

See Appendix 14 for more information about the Purposes of Assessment.

What about strengths?

Too often, assessment is perceived as a way of identifying gaps, difficulties and deficits. It is important that assessment also identifies a student's strengths. Understanding how best a student learns, can offer insight into approaches that might best suit the student. A broad conceptualisation of strengths and of the whole person is the best approach. For example, a very social student, who gets on well with others, might be ideally suited to becoming a Reader Partner (perhaps helping a younger child to read and thereby improving his/ her own literacy skills). A discussion about strengths is particularly important to the student's self-concept. Parents will always appreciate when professionals demonstrate a broad understanding of their children. Both parents and students can readily contribute to this part of an assessment, with a discussion about strengths and aptitudes.

As Marie Clay (1991) explains, a child's strengths should inform his or her interventions:

"It stands to reason that if children have difficulties and we take into the programme all who are low achievers, they are likely to have different problems, one from another. Therefore there can be no programme packages and no computer discs. Each child's programme is determined by the child's strengths and the teacher works with what the child does well and independently…" (Clay 1991b p.63).

4.2 What are the Most Effective Tools of Assessment?

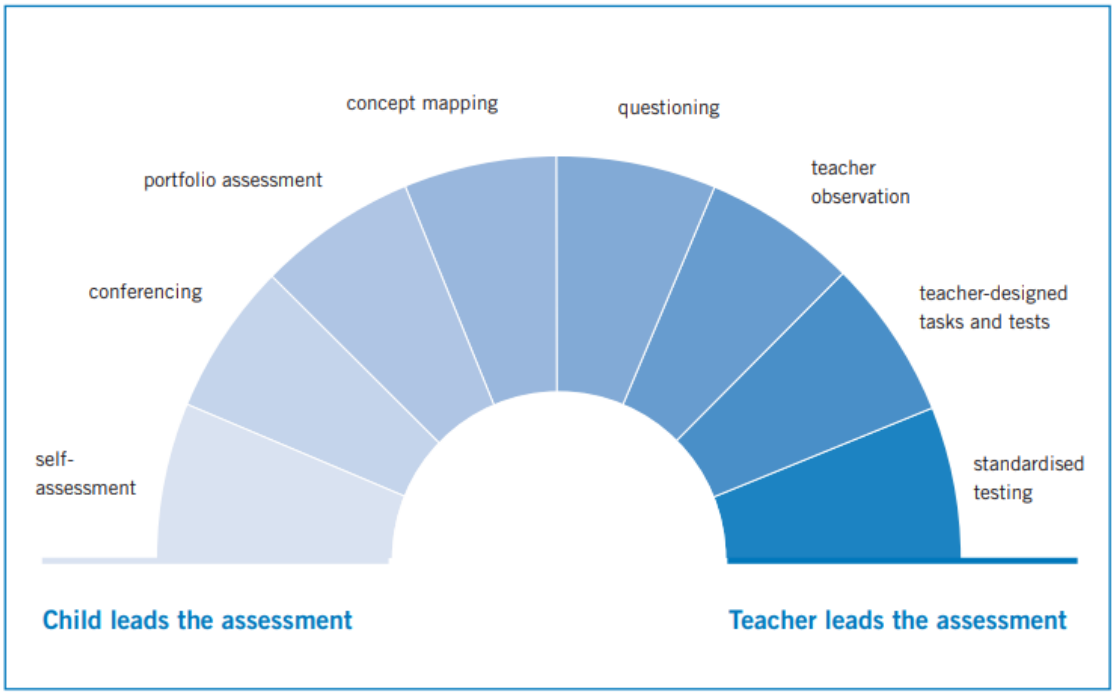
Perhaps the two most powerful methods of assessment are:

- Teacher observation and knowledge of the student over time
- Parent observation and knowledge of the child over time

Any assessment should include observation by a professional teacher and by parents over time. Together, teachers and parents are best placed to observe the child's disposition, attitude, confidence level and sense of agency, as well as noticing actual performance in particular areas of skill. The effort that a child needs to expend to achieve a certain result is immediately relevant and will not be easily captured by standardised or group administered tests.

However, there are multiple types of tests which may be helpful. The NCCA have produced comprehensive guidelines on assessment in primary schools (2007), Click here. The have produced a continuum of assessment methods, from child-lead assessment to teacher lead assessment. Further information is provided about teacher-lead methods of assessment.

Figure 2: A continuum of assessment methods



The Primary Language Curriculum also includes guidance on planning, teaching and assessing for learning (pages 38-39). The guidelines offer a useful starting point for younger children who struggle with literacy and are further enhanced by the NCCA document, Aistear, Supporting Learning and Development through Assessment (2009). Additionally, the NCCA provide Examples of Children's Language, Learning and Development, which are linked to the PLC learning outcomes and progression continua.

There are multiple types of tests that may be helpful in assessment. To learn more about the following, diagnostic tests, reporting standard scores, percentiles, stanines and age equivalent, **See Appendix 15: Understanding Tests and Test Results**

4.3 Assessment to Inform Intervention

It is most important that careful assessment informs intervention (Education Endowment Foundation, 2016 & 2017). Gersten et al (2009) in reviewing the evidence for what helps struggling readers in primary school found that assessment and review were central:
'*Screen all students for potential reading problems at the beginning of the year and again in the middle of the year. Regularly monitor the progress of students at risk of developing reading disabilities'* (p6).

Graham et al, (2016) also found that secondary aged students benefit from thorough assessment which informs instruction. In Ireland, The National Economic and Social Forum (2009) similarly recommended that assessment and recording of pupils' progress is a key element in effective literacy instruction.

While some students may have difficulty with word reading, but have no difficulty with language comprehension, others will struggle with comprehension skills. Careful assessment should indicate the area of the greatest level of need. As Education Endowment Foundation (2017) say, '*Rapid provision of support is important, but it is critical to ensure it is the right support'* (p5).

The **simple view of reading** (Gough and Tunmer, 1986), suggests that literacy competency is based on two key areas:

- Language comprehension skills
- Word recognition skills

Based on this view, Bishop and Snowling (2004) outlined a two-dimensional model of reading impairment. This model suggests that those who struggle with word-level decoding, typically have phonological deficits, while those with reading comprehension difficulties tend to have deficits in language skills. This can be a useful starting point in assessing struggling readers. For many struggling readers, and particularly readers with dyslexia, the phonic element is crucial. Singleton (2009) emphasises the need for multi-sensory programmes that target phonic knowledge. However, for other children, vocabulary instruction and comprehension strategies are the key area of need. Of course, for those with the most significant difficulties, there may be deficits in multiple areas.

Teachers need to ensure that students are given a healthy, balanced diet of literacy activities. It is not the remit of the special education teacher to deliver all elements of a literacy programme. Shared reading, the teaching of subject specific comprehension skills and vocabulary building should all be happening in the mainstream classroom or subject lesson. The task of the support teacher is to identify the area of greatest deficit or need. See also the 'healthy literacy diet' in Section 2.2.

For more information about the role of the classroom teacher see the DES Guidelines for Primary Schools: Supporting Pupils with Special Educational Needs in Mainstream Schools (DES, 2016) Click here and for the DES Guidelines for Post-Primary Schools, Click here.

In considering the needs of struggling readers, Feldman (2004) suggests selecting '*a research-based, validated curriculum as the programme "anchor"*' (p1). Programmes suitable for very young children, may be wholly inappropriate for older readers. Additionally, interventions may need to target particular aspects of reading; one student may need help with reading comprehension (for example, an inference training programme) while another may need explicit teaching of particular phonics. Therefore, teachers need to seek out interventions relevant to their particular context and the individual needs of the student.

If time allows, a highly intensive literacy programme, which addresses multiple areas of literacy can be developed and implemented (see O'Rourke, 2015). There is a tension between a broad and balanced programme of literacy and a focused, perhaps narrow intervention. The message here is that teachers should ensure that students receive a broad and balanced literacy programme throughout the school day, and that interventions for struggling readers need to be carefully targeted and to address the key underlying difficulties using evidence-based and evidence-informed interventions. This will require that progress is carefully monitored and recorded.

School Leadership & Whole School Policy

This guide is intended for individual teachers, but can also be used by school principals and indeed, may usefully inform the work of a professional learning community. If a whole school, or a group of schools are working together to develop their practices, the guidance of Smith and colleagues (Smith et al, 2016) can be really helpful. This free-to-download publication offers a range of guiding questions, which will assist schools making decisions about interventions for those with literacy difficulties. Click here.

Additionally, primary schools may find the *Looking at Our School- A Quality Framework for Primary Schools* (click HERE) to be helpful.

At post-primary level, the publication, *Looking at Our School 2016* is relevant. Click HERE
The School Self-Evaluation Guidelines are accessible HERE.

4.4 What is High Quality Assessment Data?

The Education Endowment Foundation (2016 & 2017) emphasise the importance of high quality assessment information to inform intervention. Research in Ireland (O'Rourke, 2015) tells us that using high quality assessment data to inform interventions can have a very significant impact on outcomes.

Standardised tests of reading, including word reading, spelling and reading comprehension often form the core of a thorough assessment of literacy difficulties. It is most important that schools do not rely on any one piece of information. For some students, particularly those with dyslexic type difficulties, group administered tests of reading are often comprehension- based close exercises and dyslexic students may perform at a satisfactory level. However, closer analysis of word reading accuracy, or reading fluency or spelling skills or writing skills may reveal a significant underlying difficulty.

Testing does not require the administration of standardised tests, although such tests have the advantage of giving a clear benchmark of current functioning and a way of monitoring progress over time. Teachers can also make good use of observational and criteria referenced tests, such as running records, or tests of sight vocabulary knowledge or of phonic knowledge.

Further diagnostic tests, such as non-word reading tests, reading fluency tests, tests of vocabulary knowledge and tests of spelling skills will help to pinpoint the exact nature of any difficulty.

A comprehensive assessment of literacy should include the following elements:

- Test of word reading and word attack skills and phonological awareness (the ability to decode individual words)
- Test of phonological awareness
- Test of reading fluency (usually a timed test)
- A miscue analysis /running records
- Test of spelling (Not based on weekly spelling tests)
- Test of reading comprehension
- Test of oral language skills, including vocabulary skills
- Samples of written work

Finally, as the Education Endowment Foundation 2016 point out, '*Every assessment involves trade-off, such as between the time taken to complete an assessment and its validity and reliability. Consequently, it is crucial to consider what data you hope to collect before selecting an appropriate assessment*' (p20).

Students receiving additional support for reading need to be carefully assessed and the intervention programme selected for them should target their area of need, as recommended in the NCCA guidelines on assessment for learning. Click here for more.

4.5 Tests for Assessing Literacy Difficulties

While there are a wide range of assessment tools available to schools, there is evidence that the vast majority of Irish schools use a relatively narrow repertoire of preferred tests (Mary Immaculate College, 2015).

There are many ways of testing reading, including word reading, sentence completion and close exercises. Word reading tests, by their nature are individually administered, while group tests, used at screening, usually depend on some element of comprehension.

Information about assessment instruments (including tests and web-based resources) approved by the Department of Education and Skills for use by guidance and/or special education teachers in post-primary schools can be found in **Circular Letter 0035/2017 .**

We strongly advocate that teachers conduct their own assessment for learning and make use of non-standardised assessment, such as reading records, as an integral part of their teaching. See the NCCA for further information on assessment for learning. www.ncca.ie/uploadedfiles/Publications/Aflleaflet2.pdf

When teachers are using tests to measure progress, it is best to use the same test before and after intervention. Ideally, tests that have two versions, sometimes known as parallel versions, (such as the WRAT5, Micra-T, YARC, TOWRE and Group Reading Tests) should be used as they allow retesting using the same criteria, but eliminate the risk of 'practice effects', (where the student does better because the test has become familiar).

In the post-primary years, it is important that the tests used on entry to post-primary education are age appropriate and will continue to be appropriate if used for subsequent re-testing.

A valuable assessment resource, particularly for deaf children has been devised by the National Deaf Children's Society in 2017. While immediately relevant to deaf children, it also contains helpful information about the assessment of all children and young people. Click here.

Note: NEPS, in collaboration with the ERC are working to develop a new test of literacy for use across the age range at post-primary level. The test is likely to cover: word reading, spelling, reading comprehension, reading speed and writing samples.

See Appendix 16 for a List of Tests Currently in Use

4.6 Understanding Assessment Information

The following activity is designed to help teachers appreciate the value of various sources of information, including standardised tests and samples of work.

Activity 1

Consider the five different pieces of information on the following pages. Decide, which of these children (if any) you think will need additional help with literacy?

Child A

Age 12 years, 3 months

Drumcondra Reading Test
Administered in class by teacher.

Reading Vocabulary and Reading Comprehension test
Standard score 99, percentile 47, Reading age 12 years

Child B

Age 12 years, 3 months

Wechsler Individual Attainment Tests
Administered by psychologist, individual testing

Word Reading test
Standard score 84, percentile 14, Basic reading age 8 years, 9 months

Child C

Age 12 years, 3 months

Wechsler Individual Attainment Tests
Administered by psychologist, individual testing

Spelling test
Standard score 70, percentile 2, Spelling age 7 years, 3 months

Child D
12 years, 3 months

Child D

Spellings

organise ✓
recognise ✓
realise ✓
advice ✓
provide ✓
strike ✓
fertile ✓
crime ✓
require ✓
describe ✓
habitat ✓

11/11

utastic
rk!

RD

12/9/08

Spellings

~~frame~~ frame ✓
purchase ✓
advertise ✓
habit ✓
inhabit ✓
level ✓
gravel ✓
sketch ✓
stretch ✓
display ✓
expand ✓

11/11

RD

5/10/08

Spelling

poet ✓
possess ✓
request ✓
destroy ✓
employ ✓
curtain ✓
detail ✓
cartridge ✓
explode ✓
purpose ✓
envelope ✓

11/11

RD
Excellent!

Spellings

liquid ✓
Oxygen ✓
Knob ✓
invent ✓
exhibit ✓
express ✓
citizen ✓
brass ✓
blossom ✓
content ✓
respect ✓

11/11

RD
Well done!

English

~~haul~~ haul ✓
launch ✓
laundry ✓
exhaust ✓
examine ✓
excellent ✓
depart ✓
argument ✓
parliament ✓
popular ✓
particular ✓

11/11

RD
Excellent!

Spellings

rear ✓
grease ✓
eagle ✓
cease ✓
beast ✓
breathe ✓
league ✓
disappear ✓
measles ✓
reasonable ✓
graze ✓

11/11

Sorry my pen ran out of ink. O.K.!

RD
Well done!

Child E,
12 years, 3 months

Discribe your day when you received a present of a pet Pengiun

it was a normal day like any other. I was sitting eating my breakfast, Sleep still in my eyes. ~~When~~ There was a Knock on the door; The post man. Mum answerd the door. The postman said "package for Jano Mellors." I wandered over in my PJ's. Thats me I siad. singh this and it's yours. I singed it and the post man handed me a crat. it had a dill on the side like on friges I ~~k~~open it. ~~or~~ Then there staring up like a little lost school girl was a Pengiun. I called her Dot for the unusaule dot around one eye. Cool I say mum and Noah peep over my sholder. A Pengiun I what a Pengiun now ~~X~~said Noah. come on get dressed you too. O mum I said you look after Dot but when your ~~f~~ getting Noah from school I'll take dot into town with the and girls ok? I said. So I went to School.

answered

Sign

fridge

unusual

Dot

Analysis of Activity 1

Typically, teachers identify Child B, C and E as requiring some level of additional support.

However, the surprising thing about this activity is that this is genuine data and **all five pieces of information are from the same child**. This helps us appreciate that information is needed from a variety of sources to fully understand a child's difficulties. Let's look at the information:

Child A completed a reading test that was group administered and had vocabulary and comprehension elements. She did well in this test because she is a bright child, with a good store of vocabulary and strong oral language skills. Despite the fact that she struggles to read individual words, she was able to 'muddle through' this type of assessment. Because the test is group administered, the teacher may not have been aware that the child was actually struggling.

Child B completed a word reading test and when having to read words individually, she had no context clues to help her. She make a significant number of errors and earned a score at the 14th percentile.

The individually administered standardised spelling test, shown as Child C, indicated a very significant level of difficulty, at the 2nd percentile. In this case the child could not prepare for the test, and very significant problems with combining letters together to make words became obvious.

When we look at the weekly spelling test (labelled Child D) we see how misleading this data can be: the child was able to rote learn spelling, although her parents would have reported that this was a slow, effortful and stressful process for her.

Finally, the sample of written work, labelled Child E, shows that the spelling errors evident in the standardised test of spelling are also evident in free writing. A child who can temporarily memorise spellings such as *oxygen, exhaust* and *disappear*, cannot spell words such as *crate* or *fridge*. We can also see a good imagination, a sense of narrative and a good standard of expressive language.

Overall, these samples indicate a student who is likely to be dyslexic. The pattern of errors suggest that the difficulties are not in comprehension or language skills, but are at the word level: word reading and spelling.

What could not be shown on the page was the child's account of her difficulties, her parents' observations of her teacher's observations, all of which are also important sources of information and likely to add to a deeper understanding of difficulties.

4.7 Monitoring and Measuring Progress

It has been found that the regular assessment and on-going monitoring of student literacy achievement is associated with positive outcomes, (Solity 2000; Gersten et al, 2009; Kennedy, 2010; Shanahan, 2005; Eurydice Network, 2011, McGonagle and Donoghue, 2016). McGonagle and Donoghue (2016) suggest that the collection of pre and post intervention data may have a motivational impact on the teachers involved. Additionally, the early identification of difficulties has been found to be important, (Scammacca et al., 2007; Singleton, 2009).

At the end of the block of intervention, the programme should be evaluated, through teacher reflection, curriculum-based assessment, student and parent feedback and importantly, records of student's progress (using pre and post intervention measures). This allows the teacher to measure response to intervention (RTI). This data should inform the next steps in teaching. The careful use of the NEPS Student Support File, with appropriate monitoring and measurement of progress is a useful way of ensuring improved student outcomes.

There is an increasing emphasis on using evidence based interventions: that is, interventions where there is research evidence to support the efficacy of the approach, (Brooks, 2016; Scammacca et al., 2007; Slavin et al., 2008). Standard scores are seen as the most statistically correct way of measuring progress, as they are adjusted to take account of the student's age, which is why they are often used in academic research. Brooks (2016) sets out various methods of measuring progress in reading and sets a standard by which literacy interventions can be measured, including ratio gains.

For more information about Understanding Research Data, including information on ratio gains, effect sizes, research design and research limitations, See Appendix 17.

4.8 Summary of Section 4

On the basis of this evidence, we suggest that teachers might…

- **Assess students carefully, paying attention to student strengths, as well as difficulties**
- **Collect data from a range of sources**
- **Identify the greatest area of need**
- **Choose key skill areas to develop**
- **Focus on those key skills for the duration of the intervention**
- **Make use of the Student Support File to record and monitor progress**
- **Use pre and post measures to establish the current level of performance and to monitor progress**

Section 5 Evidence-Based Interventions

This is where you will find out about different approaches that have been found to work in Irish schools. In order to fully appreciate the cited research data, it is recommended that the reader considers Appendix 17, Understanding Research Data.

- **Reading Recovery**
- **Literacy Lift-Off**
- **Edmark**
- **Acceleread/ Accelewrite**
- **Paired Reading**
- **Toe by Toe & Toe by Toe with Oral Guided Reading**
- **Precision Teaching and SNIP**
- **Wordsworth**
- **ARROW**
- **The Wilson Reading System**
- **Catch-Up Literacy**
- **Teaching Reading Comprehension Strategies**
- **Accelerated Reader**
- **SRA Reading Labs**
- **Data-informed Intervention**

Some of the information reported here is based on research done by NEPS in collaboration with Irish schools and the details of those action research projects are to be found in Appendix 18, Data from Action Research

IMPORTANT DISCLAIMER! Inclusion in this publication does not suggest that either NEPS, or the DES, endorses or promotes any commercial products, specific interventions or programmes. Readers are advised to consider the evidence presented here and make informed decisions about interventions that may be appropriate to their context.

5.1 What Works in Ireland?

Evidence-based programmes that are developed elsewhere, can be delivered in Ireland and if this is done with fidelity, it is possible to achieve considerable success. However, as noted in by the Centre for Effective Services, 2016, '*It was not as simple as just taking programmes shown to be effective elsewhere "off the shelf" and rolling them out: it took time and effort to recruit and train staff and there were issues of organisational readiness … Some adaptions had to be made to language and content, in order to ensure cultural appropriateness.*' (p69).

It is also quite possible to develop new programmes, based on local needs and embedded in the local context. This can work well, if the new initiative is grounded in a robust evidence base.

This Chapter includes evidence about interventions that have been used in the Irish context. In 2016, a call was put out to all universities, teacher training colleges, and relevant professional bodies, seeking submissions. The following criteria were set out for inclusion:

- The intervention must have been used in Ireland
- The intervention must target school aged struggling readers (age range 5 to 19 years). Struggling readers includes all those who struggle- dyslexic type difficulties/ low general ability/ disadvantaged/ English as an additional language/ unexplained reading failure etc.
- Research data about the efficacy of the intervention must have been collected in the last five years (2011-2016)
- The data must include some form of standardised measurement of literacy skills (so teacher, pupil or parent opinion is not enough- there must be literacy attainments)
- Data can be published or unpublished, but submissions need details about the source of the data, to enable it to be checked thoroughly

In all, we received or otherwise sourced 23 submissions about interventions in Irish schools. See Appendix 10 for further details). This Chapter includes evidence collected through that forum, as well as evidence collected over twelve years of action research by NEPS (2006-2018). We also conducted a literature review and were particularly mindful of the findings of the Child Literacy and Social Inclusion study done by the National Economic and Social Forum (2009). The evidence has indicated that there are a number of interventions that have proven to be effective in Irish schools.

Therefore, the selection of interventions is limited to those for which NEPS psychologists have reviewed the recent research evidence and/ or the theoretical basis. There are many other interventions available for which we have not, as yet, reviewed all the evidence, or for which research data is not yet available. This is not in any way to imply that they are not suitable for use in Irish schools.

Information about how to access each intervention is contained in a green box at the end of each sub-section. This information is up-to-date in 2019, but is subject to change.

5.2 Reading Recovery

With thanks to Siobhan O'Donoghue, PDST, Reading Recovery Teacher Leader

Reading Recovery (RR) is a school-based, short-term literacy programme designed for children aged five or six who experience the most difficulty in literacy language learning. Reading Recovery involves intensive one-to one lessons for 30 minutes a day with a specially trained Reading Recovery teacher, for between 12 and 20 weeks. (*Reading Recovery European Standards and Guidelines, 2012)*

Based on the research of psychologist Marie Clay, the short term intensive intervention is delivered in the form of one-to-one bespoke teaching by a trained Reading Recovery teacher. Reading Recovery is currently being implemented, monitored and researched in many countries, including New Zealand, Australia, the UK, Ireland, Canada, and the United States.

5.2.1 Reading Recovery in Ireland

In Ireland, Reading Recovery is available to all DEIS schools with senior infants and first class. Children who are having the most difficulty with literacy are selected for the programme, which lasts an average of 18 weeks. The goal is for children to develop into effective readers and writers and to promote rapid acceleration for each child to 'catch up' and for children to be able to work within the average band of their class, at age-appropriate levels of literacy.

During every 30 minute lesson the teacher is tasked with providing opportunities for children to actively problem-solve and self-monitor in the following areas;

- reading with phrasing and fluency on lots of previously read books
- composing messages and writing these messages
- working on words in isolation and learning some of these words to fluency
- hearing book introductions and practising new or difficult phrases or words
- reading a new book using independent problem solving and strategic actions, whilst retaining the meaning of the book.

5.2.2 Training to Become a Reading Recovery teacher

Critical to the effectiveness of Reading Recovery are the initial and ongoing professional development sessions that accredited Reading Recovery teachers attend. Initial training

teachers is a year-long training course. While the teacher's manual and the battery of tests are available for any teacher to purchase, it is the continuous professional development of teachers that ensures the quality of each programme delivered.

5.2.3 Research on Reading Recovery

Reading Recovery is one of the most researched intervention programmes in the world. A meta-analysis of 5 studies with over 700 children undertaken by What Works Clearinghouse for the U.S. Department of Education found that Reading Recovery had positive effects on general reading achievement and alphabetic instruction and potentially positive effects on reading fluency and comprehension (WWC, 2007).

A review of Reading Recovery in Britain and Ireland (2004-2005), with data for 3,566 children showed 'roughly double normal progress' see Brooks, 2016. A more recent study in Bristol (2011) indicated ratio gains of 4 for a cohort of 360 children.

Jesson and Limbrick (2013) carried out a long term study on Reading Recovery children in New-Zealand in which they tracked the gains made by these children two and four years after receiving the intervention. They noted that while 60% of students had kept up with their age cohort, 40% were markedly below the national norm. Better long term outcomes were linked to:

- Strong partnerships with families and communities
- A planned and coherent school-wide literacy strategy
- Careful monitoring and support for Reading Recovery students as they continued through school
- Children who had a strong self–efficacy and willingness to engage in problem solving

In the U.S., the independent research team (Consortium for Policy Research in Education (CPRE), 2013) completed a 4 year comprehensive evaluation, and concluded that the ambitious Reading Recovery scale-up in the U.S. was '*highly successful'* and offered '*strong evidence of the effects of Reading Recovery on the short-term progress of struggling students*' (CPRE, 2016).

D'Agostino and Harmey (2016) conducted a rigorous review of 203 studies on Reading Recovery and concluded that it was in the top 10% of early literacy programs in terms of impact. Their study demonstrated that with effective literacy instruction, at-risk children can beat the odds and accelerate their achievement gains. They concluded that Reading Recovery is an effective early literacy intervention for struggling readers, regardless of educational context and suggested that gains maintained or lost by Reading Recovery children in subsequent years could not be attributed to an intervention programme that was provided years previous, but rather to the ongoing systemic education of the children. Clearly, some students may need continued support over the course of their education, to address reading difficulties.

Submissions made to the National Economic and Social Forum in relation to Child Literacy and Social inclusion (2009) noted that Reading Recovery was having a significant impact in Irish schools, with, *'repeated calls in the submissions for more Reading Recovery teachers within schools…'* (p25). The Reading Recovery Annual Report for Ireland, 2014-2016 indicates that Reading Recovery is reaching almost 3,000 pupils per year and data suggests ratio gains of 2 (one year's progress, after 6 months of intervention).

Annual robust reports document the progress of all children served in Reading Recovery. Consistent outcomes have been shown for children in the Republic of Ireland. Nine out of ten children with completed programmes have been successful in reaching age-appropriate levels of literacy performance (International Literacy Centre, Reading Recovery Annual Report, 2016).

Click here to hear Siobhan O'Donoghue talking about Reading Recovery

Reading Recovery

You need to complete intensive training to be a recognised Reading Recovery Teacher. Information available from Reading Recovery National Network (covers Britain and Ireland) based in the Institute of Education, London

Readingrecovery.org.uk

www.ioe.ac.uk/readingrecovery

See also www.metc.ie/reading_recovery1.htm for information about reading recovery in Ireland.

5.3 Literacy Lift-Off

Literacy Lift-Off (LLO) is based on the Reading Recovery programme and has been developed and promoted in Ireland by the Professional Development Service for Teachers (PDST). Literacy Lift-Off is a within class programme, where additional teachers from the special education team join the class-teacher and establish 'station teaching' or teaching in small groups. Children spend approximately 10-12 minutes at each station, working on core skills, typically; familiar reading, letter/ word work, writing, and reading of 'new' (unfamiliar) texts. Often, schools organise for a block of Literacy Lift-Off to be delivered to students, 40-50 minutes per day, 4 to 5 days per week, for a period of 8 to 12 weeks.

The Report of the National Economic and Social Forum, (2009) noted that Literacy Lift-Off was *'an important means of transferring the Reading recovery method into the classroom environment'* (p26). The Literacy Lift-Off approach (Dalton, 2016) has been used successfully as an in-class intervention for struggling readers at second class level. Dalton (2016) reported that the 6 weakest readers in a class group made significant gains in reading accuracy (effect size 0.31), reading fluency (effect size 0.2) and particularly in reading comprehension (effect size 0.69) after a six week intervention. Excellent gains in sight vocabulary were also reported. These gains are all the more impressive as they were achieved in a DEIS Band 1 school and over such a short period of intervention.

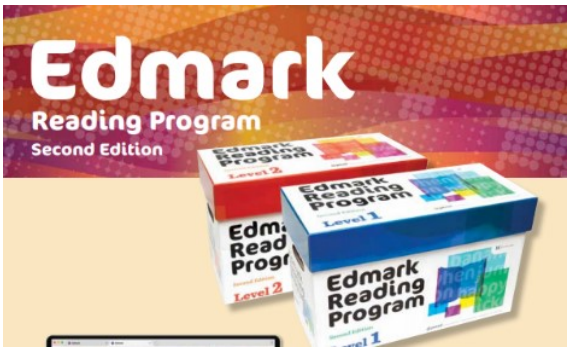
Higgins, Fitzgerald and Howard (2015) noted significant gains in letter and word identification and word attack skills for 92 senior infant children, compared to a control group, over an 8 week intervention. They also noted improved reading self-concept, although their study looked at a whole cohort of Senior Infants (including over 30% of whom did not speak English as a first language) and so this group were not all, by definition, struggling readers. Higgins et al. argue persuasively for Literacy Lift-Off as a cost-effective alternative to Reading Recovery.

Literacy Lift-Off is available in Ireland through the PDST and local Education Centres.

To learn more about Literacy Lift Off, follow the link below to the PDST website, where four video segments introduce Literacy Lift-Off, explain how to plan for Literacy Lift-Off, demonstrate Literacy Lift-Off in action and summarise the benefits of this approach.
http://www.pdst.ie/Literacy-Lift-Off

5.4 Edmark

Edmark is a literacy intervention which emphasises the teaching of vocabulary, fluency and comprehension through a multisensory approach. It differs from many other literacy interventions in that there is no emphasis on phonics or phonological awareness and it is highly visual. The programme is based on the principle of mastery learning, which proposes that almost everyone can learn to read if exposed to good quality teaching and if given sufficient time for study, practice and application. Edmark requires that students are given about 5 minutes per day of individual teaching.



Edmark has been used successfully in the United States with children who were at risk of reading failure (Mayfield, 2000) and who had learning difficulties (Vandever, Maggart and Nasser, 1976). Here in Ireland the programme has been used to improve the literacy skills of children with Autistic Spectrum Disorders (Balfe, 2008) and deaf children (Mullan, 2012). In Mullan's study, the six deaf boys involved in the study made progress in word reading that was broadly commensurate with the normal rate of progress (over 8 months of intervention, they made 7 months progress in word reading). Since deaf children rarely make progress at the same rate as their hearing peers (Swanick, 2011), these gains represent significant progress for this particular cohort of children. Significant improvements in the participant's sight vocabulary and in their confidence to read were also reported.

The Edmark programme has also been used in the Mid-West school for the deaf, where excellent results have been found, albeit with a very small number of students. For two participants, over 15 months of intervention (including school holidays) the average gains were of 24 months progress in reading.

Click here to see Edmark in action in Mid-West School for the Deaf, Limerick

Edmark is available in Ireland and the Level 1 kit is for reading ages 4 to 7 years and the Level 2 kit is for reading ages 6 to 10 years. Both Levels have material that is of interest across the age ranges, and can be suitable for adult learners. Each kit costs in the region of €850.

5.5 Acceleread / Accelewrite

Acceleread/ Accelewrite is a computer based programme, developed by Clifford and Miles (1994). It uses 'talking' word processors, and involves students reading text, memorising sentences, typing in the text and listening to the computer 'read back' what they have written. Students can self-correct errors. It is a highly structured programme and the recommended protocol is for individual tuition for 20 minutes, 5 days per week for 4 weeks. More recent developments (2015) include an iPad app, with integrated text-to-speech function and progress tracking.

Research reported by Brooks (2016) based on projects in Jersey, Devon and Wiltshire, involved 240 students (all of whom were classified as being 'low attainers') in primary and post-primary schools. After 4 weeks of intervention, students made average gains of 11 months in reading accuracy and 8 months progress in spelling skills, with further increases reported over time.

Irish research, involving 13 pupils aged 11 to 13 years, who received between 11 and 17 sessions of Acceleread/ Accelewrite found that they made average gains of 12 months progress in reading and 7 months progress in comprehension (Tierney, 2005). Furthermore, a small-scale study by Devenney (2007) showed the potential for class teachers to deliver Acceleread/ Accelewrite, while continuing to teach the mainstream class group. Seven participants in this study, who completed a four week block of intervention, working on a computer within the classroom, under the supervision of the class teacher, made 9 months progress in reading, while a control group (those attending learning support) made no measurable progress.

Acceleread/ Accelewrite was also an intervention used by teachers in projects in Waterford (Nugent, 2011). A total of 43 low-achieving students made significant gains in reading comprehension (effect size 0.24) and more modest gains in word reading (effect size 0.18). In the Kilkenny Project (2018) seven participants used the programme over 3 months and made average gains of 15 months in word reading and 7 months gains in reading comprehension. (See Appendix 18 for further information).

Click here to see Acceleread/ Accelewrite in action in Holy Cross National School, Tramore, Co Waterford

Acceleread /Accelewrite is available in Ireland through software providers. It can also be purchased on line through dyslexic.com. It can be purchased as a CD, which includes the manual and colour cards and costs about €100. Children of 8 years and up can make use of this, but basic key board skills are needed and the entry level presumes the ability to read simple CVC words (fat/ man/ run etc).

5.6 Paired Reading

Paired reading is a well-known approach. Broadly speaking, those who need help with reading are matched with a non-professional who assists by reading to the learner, reading alongside the learner and then listening to the learner read in a graduated system of support. There are various models or paired reading, including adult volunteer tutoring, and peer tutoring. Procedures for correcting errors and giving frequent praise are specified. Peer reading is reportedly cost-effective in terms of teacher time, but needs on-going organisation, including the training of tutors, monitoring of progress, maintenance of the programme. Logistical issues of time, space and suitable reading materials also need consideration.

Paired reading is one of the most comprehensively researched interventions available. Brooks (2016) reports on studies involving 2,372 students in 155 projects in 71 schools. Ratio gains of 3.3 in reading and 4.3 in comprehension were reported. As Topping (2000) noted, the general picture in published studies is that peer readers progress about 4.2 times the 'normal' rates in reading accuracy, during the initial period of commitment. However, more recently, the Education Endowment Foundation evaluated Paired Reading in secondary school and found no evidence that this approach had an impact on reading ability (2017). This was reported to be a 'large, and well-conducted study' (p1) so it is unclear why these findings are at variance with other research.

Research in Ireland found that this approach was effective with students with a mild general learning disability. In this study of cross-aged peer tutoring, data was collected for 30 'helpers' and 18 'learners', attending a special school. Those involved in peer tutoring made twice as much progress as control groups (Nugent, 2001). Nugent and Devenny (2008) reported on a peer reading scheme in a secondary school in Ireland. It was found that helpers make the most significant progress, making twice as much progress in reading over the course of the intervention, than did a comparison group. In research conducted in Waterford, Paired Reading, using a cross-age peer tutoring model, was found to be effective, particularly in the area of word reading (effect size of 0.28) with more modest gains in comprehension (effect size 0.18). It was also highly effective for Traveller children (both as tutors and tutees) who made average gains of one year in word reading and 15 months gains in reading comprehension, after a 3 month intervention. See Nugent, 2010 and Nugent, 2011. In 2018, 31 students taking part in a cross-aged peer tutoring intervention over 3 month, made 7.5 months progress in word reading and 12 months progress in reading comprehension. (See Appendix 18 for details). This is particularly impressive, since 13 of these participants attended a special school for children with a mild general learning disability.

More recently, in a small sample study (N=6) Lohan and King (2016) have reported ratio gains of 7.3 in reading accuracy, after an 8 week intervention. This study is particularly interesting as the tutors were students with emotional and behavioural difficulties (two of whom were also over a year delayed in reading) while tutees were struggling readers, who were considered to have low levels of academic self-esteem.

Click here to see cross-age peer reading in action in Mount Sion Boys' Secondary School and Mount Sion Boys' National School, Waterford

SUAS provided data about the work of their community volunteers in 2016, the majority of whom worked in Paired Reading projects. Data for 131 primary aged participants were submitted. Many of these participants had pre-intervention literacy scores in the average or low average range, so for the purposes of this resource, the data for those who were reading below the 16th percentile (Standard Score of 85 or below, or one standard deviation below the norm) were analysed separately. After approximately 2 months of intervention (consisting of one hour sessions, delivered twice per week, for 5 weeks) , participants (N= 29) made average gains of 5.96 Standard scores, equating to 7.8 months of progress, which is a ratio gain of 3.9 and an effect size of 0.40. This data suggests that community volunteers can have a significant impact on the reading skills of low achievers.

Information about setting up a Paired Reading (cross-aged peer tutoring) programme is contained in the Resources Section of this document. Click here for the Rough Guide to reading Partners.

Paired Reading/ Peer Reading

Extensive information about this approach can be found through the Centre for Paired Learning at the University of Dundee
www.dundee.ac.uk/psychology/

Information about setting up a Paired Reading (cross-aged peer tutoring) programme is contained in the Resources Section of this document. Click here for the Rough Guide to reading Partners.

There are also multiple sources of information available on the internet. See also the attached resource, A Rough Guide to Reading Partners.

5.7 Toe by Toe

Toe by Toe is a highly structured programme that teaches phonic skills. The reading of non-words is a feature of this programme, and there is considerable emphasis on recording progress. It can be used for students from the age of 6 years, although we recommend it for older students, from 9 years upwards. It has also been used effectively in the prison service. It is an individualised approach and the recommended protocol is for 20 minutes of instruction, daily. All the materials for the teacher and the learner are contained in one book.

Published research includes a study of 24 secondary aged pupils. The study used a matched pairs design with the control group receiving normal learning support and the experimental group receiving Toe by Toe, taught individually, for 20 minutes per day, five days per week, for an average of 3 months.
'*The results were definitive. The experimental group made average gains of three and a half years. The control group made average gains of five months.'* (McKay and Cowling, 2004).

Furthermore, MacKay (2006) used the Toe by Toe intervention with 104 children who struggled with reading in 32 Scottish schools (part of the West Dunbartonshire Reading Initiative). After 6-7 months of intervention, the average participant made gains of 14 months in reading (representing a ratio gain of 2.3). Similar results were found with 12 post-primary aged pupils. See Brooks (2016) for further information.

Toe by Toe was also featured in research done in NEPS, and 33 students made significant gains in word reading (effect size 0.33) and in reading comprehension (effect size 0.36), after just 3 months of intervention, giving ratio gains of 4.6. In the Kilkenny Project average gains of 8 months in word reading and 16 months progress in reading comprehension were made after just 3 months. (See Appendix18 and Nugent (2011)).

Click here to see Toe by Toe in action in
Holy Cross National School, Tramore, Co Waterford

Toe by Toe is available in Ireland from a range of educational suppliers. It is intended to be used for one to one teaching and can be used across the age range, but is probably better suited to children from third class and up. It typically costs about €40 per child.

5.7.1 Toe by Toe combined with Guided Oral Reading using Levelled Texts

As noted in Section 2, all students need a healthy diet of literacy. In some cases special education teachers can combine more than one evidence-based approach. This is not the same as an elective approach, where teachers 'dip into' different strategies. Instead, teachers deliver more than one approach with fidelity. If a special education teacher is working with a student

for more than 20 mins at a time, it is very likely that the programme will feature more than one evidence-based intervention.

This was the case in a study completed by O'Rourke, Olshtroon and O'Halloran (2016). They combined Toe by Toe with guided oral reading. Guided oral reading was at the 'just-right-level' and used the Rigby PM readers collection. This allowed struggling readers to read books with high levels of success and just the right amount of challenge.

Twenty-four pupils in 10 primary schools took part in the study. All participants received daily Toe by Toe teaching (15-20 minutes) and oral reading practice (15-20 mins) over the duration of five months (excepting school holidays). Pre-intervention and post-intervention data was collected, with a gap of 6 months.

Reading accuracy improved by 16.8 months (giving a ratio gain of 3.35), reading fluency by 14.3 months (ratio gain of 2.8) passage comprehension by 10.7 months (ratio gain of 2.1), word attack by 12.4 months (ratio gain of 2.8) and spelling skills by less than 4 months (ratio gain of 0.8). As can be seen, spelling is relatively slow to respond, while all measures relating to literacy have improved significantly. These gains are all the more impressive because the participants were all students who struggled significantly with reading.

5.8 Precision Teaching & SNIP

Precision teaching is an approach that has been used to develop reading fluency and accuracy over many years. It is based on instructional psychology and places considerable emphasis on monitoring progress and recording responses. Repeated practice is central to Precision Teaching and the most formal methods articulate a five step model:

- **Identify the learning objective**
- **Develop materials and procedures**
- **Time the student's performance and count accuracy**
- **Chart progress (Using a Standard Celebration Chart)**
- **Review (Celebrate/ Plan next steps)**

Griffin and Murtagh (2015) reported on a study involving 20 students in middle and upper primary school, who attended learning support (along with a control group). The Precision Teaching intervention in their study was delivered on a one-to-one basis, for 10 minutes daily, over 8 weeks. Pupils made significant gains in sight vocabulary. Reading accuracy, reading fluency and reading comprehension also improved and the composite effect size was an impressive 0.51 (using the standardisation sample, rather than the control group, which was the method reported in the research).

Qualitative data collected by the researchers indicated that teachers felt that students responded to the personalised nature of the intervention and the one-to-one support. The relatively short time-frame was considered beneficial and the programme was considered motivating for students and teachers.

In another Irish study, Mannion (2016) used a rigorous precision teaching design to teach Irish language vocabulary to primary-school pupils (for whom Irish was a second language) with impressive gains in both word reading and reading fluency. Finally, Crowley (2016) reports on the use of precision teaching as a means of teaching a social sight vocabulary to adults with a moderate intellectual disability, and this study may be of interest to teachers working with children and young people with a moderate disability.

For those wishing to use a precision teaching method, the resource pack contains various resources, including guidance on how to teach sight vocabulary.

Click here to find out more about precision teaching approaches and to access resources.

SNIP is perhaps the least well-known of the intervention methods described here. It is grounded in the theory of precision teaching and was developed by Carol and Phil Smart. It is suitable for students in the upper part of primary school or early secondary school and aims to develop their sight vocabulary, particularly of essential curriculum words. Students are taught lists of sight words, which they practice daily, for five minutes, until they attain fluency. SNIP is freely available to download. It is recommended that students have a reading age of about 10 years, before embarking on the SNIP programme, although we have seen successful outcomes with students with lower reading ages at the outset.

While SNIP is based on Precision Teaching principles, it has been criticised as not adhering to some of the core principles of Precision Teaching, for example, not using a Standard Celebration Chart. Despite these reservations, there is evidence for the efficacy of SNIP.

SNIP was one of five interventions that were evaluated in the Waterford research (see Appendix 18). Twenty-one participants made very good gains in word reading (effect size 0.53) but more modest gains in comprehension (effect size 0.12). In the Kilkenny Project (2018) 23 students followed a SNIP programme for three months and made average gains of 14 months in word reading and 7 months in reading comprehension. The relative lack of progress in reading comprehension is perhaps not surprising, as this programme is very much focused on word reading. An important aspect of the SNIP programme is that is requires relatively little teaching and learning time.

Click here to see footage of an introduction to the Precision Teaching approach and its application with two eight-year olds.

Precision Teaching Approaches

SNIP Precision Teaching Pack (credit Carol and Phil Smart)

www.snip-newsletter.co.uk This is a free download. It should be noted that the research evidence provided in the text is based on the original SNIP word lists and did not involve the follow-up activities that are now part of the resources available.

See also the sample precision teaching approach for *Teaching a Sight Vocabulary and Improving Reading Fluency* in this pack, which gives details of other free download resources.

Guidance about using Precision Teaching Approaches are included in the resources section of this document, click here

Click here to see SNIP (precision teaching) in action in Presentation Secondary School, Waterford City

5.9 Wordsworth

Wordsworth Literacy Programme is a reading and spelling intervention that was devised by a speech and language therapist, Rita Treacy. No training is required to use the programme, as it is a step-by-step process that consists of 104 video tutorials with 330 interactive exercises. It is organised into seven levels, which need to be followed is a structured order. It is suitable for students aged from 6 years old to adult, and can be used in single mode or in small groups. The programme takes approximately 16 weeks, typically with 15 minute sessions each day. Progress is tracked using multiple-choice questionnaires and the programme can be delivered on PCs, Smartboards, Tablets and Smartphones.

Studies in 2011 and 2012 indicated promising results, although the difficulties with data analysis and the fact that most students appear to have been performing within the average range of reading ability at pre-intervention, make it difficult to extrapolate the findings to struggling readers. It appears that Wordsworth (and the flipped classroom, see below) is an effective whole class approach, helping many children achieve to their full potential in reading.

In 2013, the NBSS, in association with CAINT (a speech and language therapy service) completed evaluations of two, very similar projects. In both cases the Wordsworth programme was delivered by a qualified speech and language therapist to small groups (2 to 5 students) of post-primary aged students (N=11) over a period of 9 months. The intervention period began in the summer term and was finished by the following Christmas. This means that for 3 months (in the summer holidays) students were not receiving intervention. In total, intervention comprised of 17 hours of tuition from a speech and language therapist, plus between 4 and 25 hours of follow-up work by a resource teacher. Outcomes for this small group of struggling students were excellent:

- Reading comprehension, gains of just over 3 years, (ratio gain of 4.1 and effect size of 1.0)
- Word reading, gains of just under 3 years, (ratio gains of 3.9, effect size of 0.78)
- Spelling, gains of 21 months, (ratio gains of 2.4 and effect size of 0.41)

Reading rate did not seem to respond to this intervention, with gains of just 2.43 months (over a 9 month intervention) and an effect size of 0.02. At this point, what is needed is more information about whether Wordsworth, when delivered in small groups by teachers (rather than by speech and language therapists) can replicate the results of these 2013 small-scale studies.

Finally, a 2016 study by Treacy showed that Wordsworth programme, (using what Treacy describes as the 'flipped classroom' where students move at their own pace through on-line resources and consolidate learning with home activities) can have a significant impact on not just word reading and comprehension, but on spelling skills. This is particularly important, as spelling skills are known to be most resistant to intervention. Treacy's study showed excellent gains for all 8 participants. For the purposes of this analysis, data for the 4 lowest achieving pupils was analysed. These were students whose pre-intervention

scores were 85 or below (mean pre-intervention standard score of 78). These students made an average of 22.5 months progress in spelling (a ratio gain of 3.75) with standard score gains of 10.75, giving an effect size of 0.72. Obviously, the cohort of low achieving readers is small, and the fact that students need to do a significant amount of homework is a crucial factor in the 'flipped classroom' approach. We need further studies of Wordsworth to see how this intervention works for those with the most severe literacy difficulties and whether the 'flipped classroom' can be utilised in special education contexts, for those who cannot access such support at home.

Wordsworth is available in Ireland **https://www.wordsworthlearning.com/**
In previous years, the programme was largely delivered by a qualified speech and language therapists, but it is now available to teachers. The 'Professional Plan' costs €150 Per Annum – for a Single User Licence, aimed at Special Education Teachers, , SLTs, TEFL etc)

5.10 ARROW

ARROW stands for Aural- Read- Respond- Oral- Write. It is a programme developed by Colin Lane (2008) and was used originally with children with significant hearing loss. It works on the principle that hearing one's own voice is a psychological key to much language comprehension. The system involves students recording and playing back their own voices reading, using laptop computers and headphones and a structured system of examples and exercises. The program displays a piece of text at the appropriate level (anything from a single letter to a short paragraph). The student hears it spoken, then repeats it aloud, and records it, then plays it back. At the end of the process, the student writes down the piece of text. The programme has a range of protocols, typically 30 minutes per day, for a total of 10 hours tuition. One adult is able to supervise a number of students (typically 5), as long as each student has access to a computer.

Brooks (2016) noted, '*The Bristol study showed remarkable benefit for spelling, and spectacular progress in both reading accuracy and comprehension*' (p20). In this Bristol study, 85 students made average gains of 16 months in reading accuracy, 22 months in reading comprehension and 8 months in spelling after just 2 weeks of intervention. More importantly, studies focused on low ability children (N=911) in 73 primary schools, reported gains of 8.5 months in reading accuracy and 6 months in spelling, after a 2 week intervention and very similar results were found for a post-primary cohort of students with literacy difficulties (188 students in 13 schools).

Irish research (see Nugent, 2011 and Nugent, 2012) indicates that ARROW can be an effective intervention for children with a range of literacy difficulties and intellectual abilities. Gains of more than one year were recorded in both word reading (effect size 0.34) and reading comprehension (effect size 0.26) after three months of intervention. Lane (2011) outlines how Irish schools could use ARROW, including developing for the teaching of Gaeilge.

Click here to see ARROW in action in Coláiste Chathail Naofa, Dungarvan

Click here to see ARROW in action in St John's Special School, Dungarvan, Co Waterford

ARROW

See the website self-voice.com where there is information about research findings and the training programme. Staff need specialist training and the school need to invest in the software. The ARROW centre can be contacted on arrow.centre@yahoo.co.uk so see www.self-voice.com Phone 00 44 1823 324949 Costs for training and the programme are approx. €2,000 per school.

5.11 The Wilson Reading System

The Wilson system was first published in 1988. It is based on five key components of literacy:

- **Phonemic awareness**
- **Phonics**
- **Vocabulary**
- **Fluency**
- **Comprehension**

The Wilson programme is specifically designed for students who struggle with word-level difficulties (typically, these students are considered to be dyslexic). The programme is based on the principles of direct instruction and therefore focuses on building fluency and mastery of each skill, before moving on.

Previous American studies have shown that the Wilson programme can have a significant impact on word reading (Torgesen et al, 2008) and appears to have the greatest impact for those with the greatest level of difficulty. A *What Works Clearing House* study reported a relatively small effect, which was nonetheless significant. A subsequent study has showed that the programme can also have a significant impact on both reading rate and reading comprehension for those with significant literacy difficulties (Stebbins et al, 2012). Interestingly, this study which involved four 45 minute sessions per week over 2 years, suggested that while significant gains were made in word attack, reading fluency and basic reading skills in the first year of intervention, there was relatively little further progress made in the second year, where scores appeared to plateau. On the other hand, reading comprehension skills (as measured by mean Lexile scores) continued to improve in the second year. A further study, (Duff et al, 2015) showed that Wilson was effective with 51 students with learning difficulties (typically, dyslexic profiles), including those who were from disadvantaged communities. This cohort made significant progress in reading fluency and reading comprehension.

Data reported by one special reading school in Ireland shows more impressive gains than previously reported elsewhere. Sheahan (2017) reported on 47 students with severe dyslexia who followed the Wilson programme over two years. Gains in reading accuracy were 9.3 Standard Scores (effect size of 0.62), gains in diagnostic word reading were 13.4 Standard Scores (effect size of 0.89) and gains in comprehension were exceptional; gains of 17.5 Standard Scores (effect size 1.17). This gains are quite exceptional and indicate that, on leaving the specialist placement, the average student earned a standard score of 108 in the crucial area of reading comprehension, placing the average student in the 70th percentile. This represents average gains of about 6 years in reading comprehension, over the space of 2 years. Perhaps more importantly, the number scoring below average in reading comprehension (a standard score of below 90) was just two students out of 49.

As noted in the introduction to this section, there are some significant reservations about making a direct link between these outcomes and the Wilson programme: The Irish study does not have

a control group ***and*** the group in the special reading school were clearly receiving a broad range of interventions (including Building Bridges of Understanding, which teaches comprehension strategies). While bearing this in mind, this rate of reading progress has never previously been reported in Irish reading schools or classes. The relevant school principal and professional teaching staff report their belief that the Wilson programme is a key element in their success. Data from a second reading school also indicated promising results, although the format of the data did not allow for calculation of effects sizes, ratio gains or standard score gains.

In 2018, seven students in mainstream primary schools followed the Wilson programme for three months of intervention. They made average gains of 5 months in word reading and 11 months is reading comprehension.

Click here to see an introduction to the Wilson Reading System

The Wilson Reading System can be purchased from the Wilson Language Training Corporation in the US. The fourth edition was published in 2018. There are multiple elements to the programme. Advice for Irish Reading Schools suggests that teachers can buy the materials without being trained. However, on-line training programmes are available.
Contact info@wilsonlanguage.com

5.12 Catch-Up Literacy

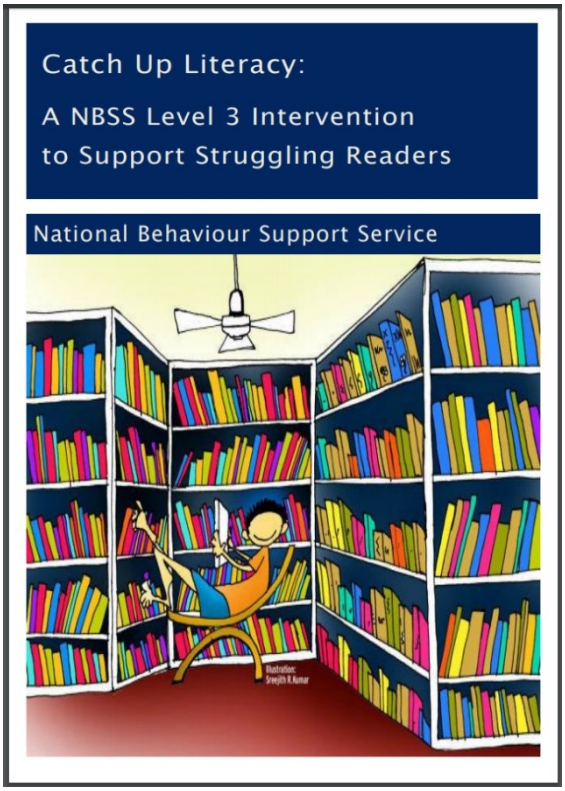
Catch-Up literacy was developed in 1998 at Oxford Brooks University. It is a one-to-one literacy intervention for struggling readers. It is aimed at children in the 6-14 age range and involves 15 minutes tuition, twice per week, for a term or two (typically about 30 weeks, depending on the student's needs). Brooks (2016) reports that a key factor in the success of Catch-Up is that it is practical and inexpensive.

This approach builds on the work of Marie Clay (Reading Recovery). The intervention begins with careful assessment of the student's needs. The twice weekly sessions (15 minutes each) consist of 3 parts:
Prepared reading (the adult provides key vocabulary and helps the student become familiar with the story)
The student reads the story (adult monitors progress, uses Pause, Prompt, Praise, and identifies words for follow-up)
A linked writing or spelling activity, with adult support for word reading.

Catch-Up Literacy has been evaluated at primary and post-primary level and has been found to be effective with children in care and Roma, Gypsy and Traveller students. Holmes et al (2011) conducted a large-scale evaluation (5,479 participants) over eight years. The participants were low achieving students (average pre-intervention standard score of 70) and they made outstanding gains, with post-intervention scores of 87 (Gains of 17 Standard score points, Salford Reading Test). As the intervention was of relatively long duration (7.5 months) ratio gains are reported to be 2.3. Similar ratio gains are reported for 175 post-primary students in 13 schools in Wales (see Brooks, 2016), and rather higher ratio gains in a Nottingham study (20 students in the experimental group) with the average standard score gain in reading comprehension of 13 Standard score points. These studies are particularly significant as they address the needs of children with low levels of literacy pre-intervention. Catch-Up Literacy has also been used effectively with children in care, with a relatively small scale study (10 participants) making ratio gains of 4 after a six month intervention (2 years progress in 6 months). This rate of progress was not sustained beyond 6 months, which again suggests the importance of the first 12 hours of tuition (see Section 3.4). Finally, a pilot study in Lancashire indicated that nine Gypsy, Roma and Traveller participants made ratio gains of 3.5, using Catch-Up digital games in a library setting. As Brooks (2016) points out, there is *'the possibility of good progress for those who can be persuaded to persist'.*

The Education Endowment Foundation (2017) reviewed the use of Catch-Up Literacy in 85 schools, involving 557 pupils. While the effect size for progress in reading was modest (0.12), they noted that Catch-Up Literacy had statistically significant impacts on pupil's attitudes to school, self-assessed ability and their confidence and enjoyment of writing.

Of particular interest to Irish teachers is the work of the NBSS in post-primary schools. They report on data for 333 students in 58 schools. These students started the intervention with low reading attainment, being, on average, more than five years behind their chronological age in reading (Salford Sentence Reading Test) AND with significant levels of social, emotional and behavioural difficulty. After 4.3 months of intervention, with students receiving Catch-Up Literacy twice per week for 15 mins, made average gains of 10 months in literacy, representing a ratio gain of 2.3. This intervention is particularly important as it is effective for very low achieving students and those with additional needs and it is relatively cost-effective and requires relatively little student or teacher time.



The following links to NBSS resources may be helpful:

http://www.nbss.ie/sites/default/files/publications/catch_up_research_report.pdf
http://www.nbss.ie/node/202

Catch-Up Literacy Training is currently only available from a UK provider, see their website https://www.catchup.org/ The cost for one person to train is €500 approx. This is a one-off cost and includes everything in the training and support package. All trainees also get ongoing support from the Catch Up Community, by phone, email and online.

5.13 Teaching Reading Comprehension Strategies

As noted above in Section 2, the teaching of comprehension strategies has good evidence as an effective approach. However, we were not aware of any published research in Ireland that documented the efficacy of this approach. Therefore, we were pleased to receive a submission from O'Shaughnessy (2017) which outlined an effective approach to teaching reading comprehension strategies to students in an Irish, DEIS post-primary school.

An important aspect of the teaching of reading comprehension strategies is that it is need not based on a commercial package- but rather builds on knowledge about effective approaches. In the case illustrated here, each group was taught by a skilled and experienced learning support teacher and the programme was planned to be delivered over 12 weeks, with two lessons per week. The specifics of the programme were developed by O'Shaughnessy, but they included well-known approaches to teaching comprehension skills including, SQ3R, questioning, inference, prediction, summarising and deduction, as well as cloze procedures.

O'Shaughnessy points out that there were elements of the intervention, other than the explicit teaching of comprehension strategies that contributed to the success on the intervention. These include: positive statements made by the teacher about the expectation that students would make progress and achieve, a collaborative approach to teaching and learning where students made choices about the learning materials that they would use, the presence of 'one significant adult' who built a relationship of trust with the students, the creation of a 'safe' environment for students and an emphasis on co-operative learning and peer support in the classroom.

O'Shaughnessy collected pre and post intervention data over a number of years and when that data is collated it indicates the following: Thirty-one students (all female) received the intervention, typically in groups of five to thirteen students. Participants were all well-behind their peers in literacy skills, with an average pre-intervention reading comprehension standard score of 81 (10th percentile), which equated to reading at the 8:6 level, indicating a reading delay on entry to post-primary school of approximately 4 years. Each group was taught by a skilled and experienced learning support teacher and the programme was planned to be delivered over 12 weeks, with two lessons per week. The specifics of the programme were developed by O'Shaughnessy, but they included well-known approaches to teaching comprehension skills including, SQ3R, questioning, inference, prediction, summarising and deduction, as well as cloze procedures.

For the first group of students (N=13), the effect size can be calculated and was of 0.45. For two subsequent groups, data was presented differently and it was not possible to calculate an effect size, but ratio gains of 4.3 and 3.1 were calculated by this researcher. In both these two groups, this represented gains of over 2 years (average of 27 months) in reading comprehension skills between pre and post testing. The time elapsed between pre and post testing was 6 to 9 months, although the intervention took place during a 12 week period. It may be the case that pre and post intervention testing immediately before and immediately after the intervention, would generate even larger ratio gains.

Data about student progress was enhanced by the collection of school-based test results for one cohort. This group (N=13) received their intervention in the period between the Christmas (December) school tests and the Summer (May) school tests. O'Shaughnessy collected test results (marks out of 100) in three subjects: English, History and Geography. Every student in the study had improved their grades in all three subjects. Mean grades in the December tests showed students who were failing, or on the cusp of failing: English 40%, Geography 28%, History 29%. Mean grades post-intervention in May showed students who were beginning to experience success in school: English 52%, Geography 48% and History 55%. Of course, we need to be cautious about comparing results from Christmas to Summer, as these are not standardised instruments and, as noted in the introduction to this section, we cannot make an absolute causal link between the learning of comprehension strategies and these outcomes, but the direction of outcomes for these participants is promising.

In a strictly experimental research design, these additional factors would be considered to have contaminated the data. However, for most practising teachers, knowing about these additional elements is an important way of enhancing our understanding of the data and in turn, strengthening practice.

Click here to see collaborative group work and comprehension skills in action in Presentation secondary school, Waterford

Resources for Developing Reading Comprehension

Since the teaching of comprehension involves the deployment of strategies, rather than programmes, the approach is somewhat different to the approach to teaching phonics or fluency. Excellent resources that use evidence from research are available. For teaching comprehension skills in the primary school phase, the following is a free download and includes clear guidance with five key recommendations:

Improving Reading Comprehension in Kindergarten through 3rd Grade, Institute of Education Sciences, What Works Clearinghouse, NCEE 2010-4038

http://ies.ed.gov/ncee and whatworks.ed.gov/publications/practiceguides.

The NBSS (National Behaviour Support Service) have also produced excellent materials on comprehension strategies for post primary schools. http://www.nbss.ie/node/164

A further resource which pays particular attention to adolescent readers is the report of the ADORE project: Teaching Adolescent Struggling Readers: A Comparative Study of Good Practices in European Countries.

http://ec.europa.eu/education/transversal-programme/doc/studies/2006adore_en.pdf

Additionally, as mentioned in Section 2, **Reciprocal Reading** is an approach to teaching reading comprehension strategies and there is good evidence for its efficacy. Click **HERE** to learn more.

5.14 Accelerated Reader

Accelerated Reader (AR), is a web-based intervention, produced by Renaissance Learning Company. It is a whole-group programme for managing and monitoring reading, and it aims to foster the habit of independent reading among primary and younger secondary pupils. The software initially screens pupils and identifies their reading levels and then suggests books that match their reading level and interests. A system of computerised quizzes on the books is used to monitor and reward reading, by allocating 'points'. The main elements of Accelerated Reader are:

Assessment of a student's reading level through the STAR (Standardised Test for the Assessment of Reading) test
A system of levelling books using the ATOS reading formula (Advantage TASA Open Standards) which includes average sentence length, average word length, vocabulary grade level, and number of words in the book
Assessing comprehension by means of a computer-based quiz that tests general knowledge in a multiple choice format of 3-20 questions
Providing a range of reports for parents and teachers that detail student progress

In this approach, text complexity is determined by the ATOS formula, which uses the text of an entire books to inform the calculation rather than just a sample, as with some other formulae.

The What Works Clearinghouse (IES 2008) noted that Accelerated Reader was an effective reading intervention, with a positive effect on reading achievement. However, only two, rather small scale studies informed that finding. Gorard et al (2015) (on behalf of the Education Endowment Foundation) evaluated Accelerated Reader. This comprehensive study reviewed all previous research into Accelerated Reader and then reported on a study involving 349 experimental participants (with 183 acting as a 'waiting' control) in 10 schools. Participants did a 22 week programme of Accelerated Reader and the data showed '*a clear benefit in favour of the intervention group'* in the area of reading comprehension, (effect size 0.24), with children from disadvantaged communities responding best to the intervention.

Gorard et al (2015) concluded that the main requirements for successful implementation of Accelerated Reader are a well-stocked library, a wide collection of books banded according to the Accelerated Reader readability formula, and easy access to computers with internet connection. They also noted that pupils with very low levels of reading may not be ready to read independently and are likely to need initial teacher support to start reading books.

Topping (2016) conducted a large scale study into programme fidelity and outcomes, reviewing data for 852,000 students. He found that the more rigorously AR was implemented, the more significant the gains for the participating students. This was true across primary and post-

primary ages and for those who were struggling readers, those who were socially disadvantaged and those for whom English was an additional language.

Clarke and Cunningham (2016) reviewed a large body of data, focusing on almost 10,000 children who used AR and comparing them to 22,000 children and young people between the ages of 8 and 18 who had not used AR. They found that children who used AR were significantly more likely to enjoy reading, to read frequently outside of the classroom and to think positively about reading. Byrne and Parkinson (2018) found similar results, with Irish 3rd class children (N=90) who engaged in AR showing significant gains in reading self-concept after a 9 week intervention.

Finally, in the 2018 Kilkenny project, 13 primary aged students who used Accelerated Reader made 8 months progress in word reading and 12.5 months progress in reading comprehension after just 3 months of intervention.

There are now over 200 schools in Ireland using this approach. Some Education Centres may offer training. To view video footage of Accelerated Reader in Ireland follow this link; http://renlearn.ie/partofthestory/

Accelerated Reader can be purchased through Renaissance (Contact Enda.Toner@renlearn.co.uk). Teachers need to be trained and the first year is the most expensive for any school, with *Implementation and Training Costs* (between €1,500 and €2,500 for a primary schools and €3,000 and €3,500 for post-primary schools). After that, the school buys an annual license (approx. €500, depending on the size of the school) and there is an additional per student cost.

5.15 SRA Reading Laboratories

SRA's Reading Labs provides highly structured reading experiences which are tailored to both the chronological age and the reading age of the student. There are 3 series covering the age ranges 6-9 years, 9-12 years and 12-15 years. The range of reading levels encourages students to learn independently and at their own pace. Self-directed readings allow an entire classroom of readers to learn at different levels. The teacher initiates the program with a placement test and then students progress through each level at their own rate. The programme provides fiction or nonfiction reading selections, with a *Comprehension* section and a *Learn About Words* section. Students record their answers in their own student record book.

The publishers of Reading Laboratories (McGraw-Hill) cite a range of research that they claim supports the use of the resource, but the studies are all ones that support the elements and components of SRA, but do not evaluate SRA itself. Additionally, the studies cited are all prior to 2000.

While there has been some research done internationally, it is now so old that is cannot be readily applied to the modern context. Indeed, one of the few studies done evaluated SRA's use in Ireland in 1969 with a small group of boys.

However, recent evidence in Ireland (although very small scale) is promising and therefore, SRA Reading Laboratories may warrant further investigation.

In one study (2009) in a boy's school with DEIS status, SRA labs were used as part of a peer tutoring programme and outcomes were excellent- with pupils who participated in 3 months of intervention making one year's progress in word reading and one year's progress in reading comprehension. More recently (2018) seven students followed the SRA programme as part of the Kilkenny Project (See Appendix 18) and these participants made 28 months progress in word reading and 8 months progress in comprehension, and 9 months progress in spelling, after just 3 months of intervention. These are outstanding gains and suggest that the current iteration of SRA Reading Laboratories may have considerable potential.

SRA Reading Laboratories are available in Ireland from a range of educational distributors and cost in the region of €750 for a full kit of any one series.

5.16 Data Informed Intervention

While the interventions referred to above are generally discrete pieces of work, it is important to bear in mind that literacy teaching needs to be broad and balanced. In many schools, the special education context is used to remediate a particular area of literacy difficulty- for example, word reading, sight vocabulary or comprehension strategies. Other vital areas of literacy development are nurtured within the mainstream teaching context, for example, story-telling, writing for different purposes, literature appreciation etc. O'Rourke, (2016) reports on a study that combined a number of key elements of literacy instruction into a coherent and intensive literacy programme for struggling readers in their first year of post-primary education.

In this intervention, careful assessment indicated the areas of weaknesses that needed to be addressed and intervention was linked to that assessment information. Therefore, struggling readers (N=13) were not treated as a homogenous group, but clustered into three teaching groups, based on their profile. One group had poor word reading skills, but relatively good reading comprehension skills. A second group had relatively good word reading skills, but poor reading comprehension, while a third group had significant deficits in both areas.

The interventions offered were broadly as follows:

Group 1 – Poor word reading, relatively good comprehension (at pre-intervention)

Daily guided reading at the 'just-right' level (with 'reading conferences' to help match students with text of interest)

Spelling and word study programme (using Words their Way, Bear et al, 2005)

Group 2- Poor reading comprehension, relatively good word reading (at pre-intervention)

Vocabulary development through reading aloud and book talk (group work)

Guidance on the use of comprehension strategies (informed by Building Bridges of Comprehension, Courtney and Gleeson, 2010, and Reciprocal Teaching, Oczkus, 2003).

Group 3- Those with difficulties in word reading and in reading comprehension

Toe by Toe (Cowling & Cowling, 1993)

Reading at the 'just-right level', with adult giving corrective feedback

Vocabulary instruction

Reading comprehension strategies (informed by Building Bridges of Comprehension, Courtney and Gleeson, 2010, and Reciprocal Teaching, Oczkus, 2003)

Spelling and word study programme (using Words their Way, Bear et al, 2005)

This intervention required intensive supports, with students taught in small instructional groups (about 4 per group), with eighty minutes of instruction per day (two single lessons). However, the outcomes are impressive, and for the vast majority, learning support for literacy could be discontinued. The average participant made almost 3 years progress in word reading and reading comprehension, after one academic year of intervention. For those who started the interventions with very low scores (below a standard score of 85), results showed standard score gains of 17 points, giving an effect size on 1.17.

5.17 Selecting an Intervention

The interventions reviewed in this section have been shown to be effective, but there are many other evidence-based interventions available, for example, Corrective Reading and Inference Training (for comprehension skills). Brooks (2016) provides a most comprehensive review as do the websites www.bestevidence.org and www.fcrr.org. At the post-primary level, the NBSS have also carried out research in Irish schools and this can be found in their publication, *Literacy and Learning Programmes and Resources* www.nbss.ie Teachers need to select interventions, taking account of a range of factors. The following structure may be helpful in guiding decision making:

- **What interventions are readily available to me?**
- **What evidence is available?**
- **Which of these interventions is suited to the student's age group?**
- **Does the intervention appear to target the student's greatest level of need?**
- **Are there particular reasons why a student might respond better to one approach rather than another?**
- **Can the special education timetable offer the type of structure required by this intervention?**

Some new approaches can be implemented at very low cost (SNIP), without any time delay, while other approaches may require longer-term investment and training (ARROW). We suggest that teachers aim to build a repertoire of effective interventions, so that they can be responsive to individual needs. This is not the same as adopting an eclectic approach, where multiple elements of different programmes are combined, which has been found to be less effective. Rather, the teacher systematically delivers an evidence-based intervention and after review, either continues with this programme or offers an alternative evidence-based approach for a further block of time. It is certainly the case that students (and teachers) may tire of particular approaches after an intensive block of intervention, and may be more responsive to novel approach after a period of time.

Section 6.

An tSeirbhís Náisiúnta Síceolaíochta Oideachais | National Educational Psychological Service

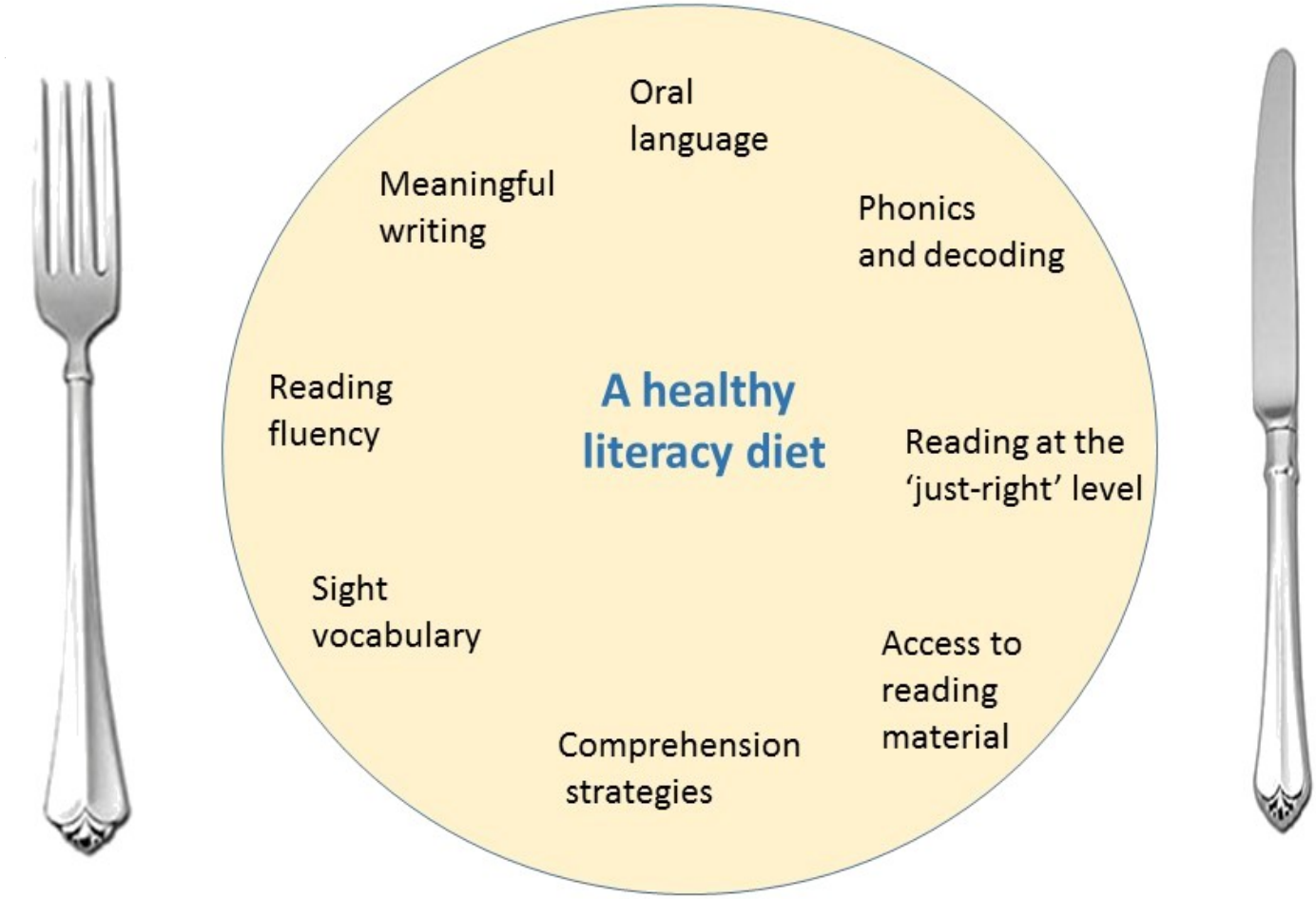
Resources to Support Struggling Readers

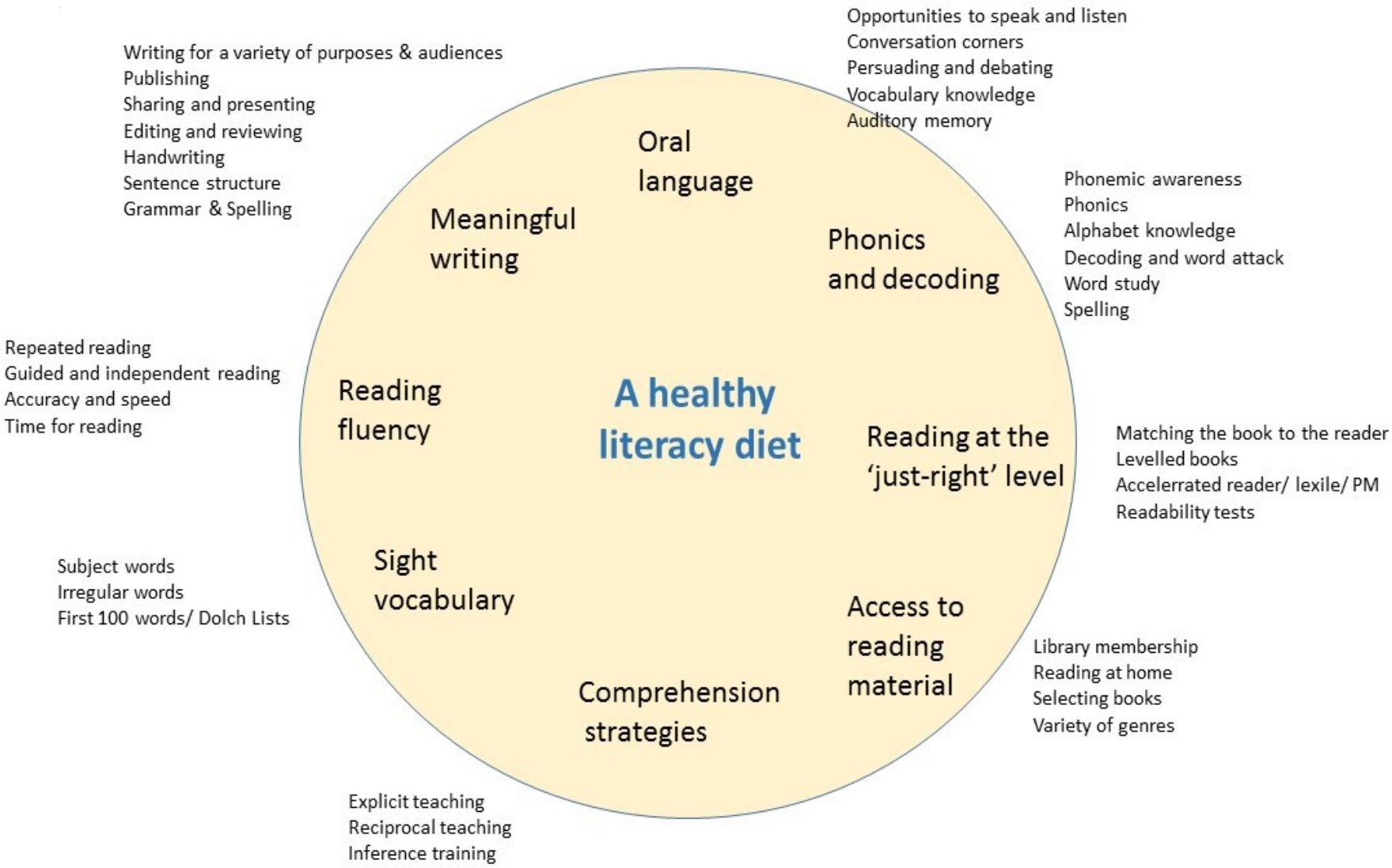
1. **A Healthy Literacy Diet- Template for Planning**

2. **Precision Teaching Guidance**
   - Teaching Sight Vocabulary and Improving Fluency – A NEPS Good Practice Guide
   - Precision Teaching Approaches and Using SNIP (free download)
   - Checklists for First 100 Words, Second 100 Words, Phonics

3. **Reading Partners Guidance** (cross-age peer tutoring)
   A Rough Guide to Reading Partners – A NEPS Good Practice Guide
   Supporting templates

4. **Guidance on the Use of Positive Declarations**


Oral language
Meaningful writing
Phonics and decoding
Reading fluency
A healthy literacy diet
Reading at the 'just-right' level
Sight vocabulary
Access to reading material
Comprehension strategies


A healthy literacy diet
Oral language
Opportunities to speak and listen
Conversation corners
Persuading and debating
Vocabulary knowledge
Auditory memory
Phonics and decoding
Phonemic awareness
Phonics
Alphabet knowledge
Decoding and word attack
Word study
Spelling
Reading at the 'just-right' level
Matching the book to the reader
Levelled books
Accelerrated reader/ lexile/ PM
Readability tests
Access to reading material
Library membership
Reading at home
Selecting books
Variety of genres
Comprehension strategies
Explicit teaching
Reciprocal teaching
Inference training
Sight vocabulary
Subject words
Irregular words
First 100 words/ Dolch Lists
Reading fluency
Repeated reading
Guided and independent reading
Accuracy and speed
Time for reading
Meaningful writing
Writing for a variety of purposes & audiences
Publishing
Sharing and presenting
Editing and reviewing
Handwriting
Sentence structure
Grammar & Spelling

An tSeirbhís Náisiúnta Síceolaíochta Oideachais | National Educational Psychological Service

Teaching Sight Vocabulary and Improving Reading Fluency

A precision teaching approach

A Guide for Teachers and Parents

This NEPS Good Practice Guide was developed by educational psychologists. It is based on current knowledge in this area. It is intended as a guide only. Not all the suggestions here will apply to any one student or situation.

A Precision Teaching Approach to Teaching Sight Vocabulary and Improving Fluency

It is important when working with children that they read at a level that is called proficiency level. This means they can read material at a 95% accuracy level.

Outlined below is a method that will support you to achieve this proficiency level. It is a precision teaching method although precision monitoring may be a better term to use as it monitors precisely learners' progress in acquiring sight vocabulary. It is about building a sight-vocabulary using a visual method. This is learning to read words by looking at them and remembering them, rather than sounding them out. This is just one element of literacy tuition and children will also need to participate in informal reading activities for pleasure as part of an overall balanced approach.

1. Establishing target words

To start precision teaching one needs to identify where the learner is in relation to either their current class reader or dolch list, textbooks, Jolly Phonic 'tricky' words or any list of key sight words being taught. Establish where they are by checking the number or words which they can automatically recognise. (Automatic recognition is different to decoding. It means the learner instantly recognises the word as a whole word and does not hesitate or sound out the word).

Provide the student with a copy of the list of words you wish to check and keep a copy for yourself. Ask the student to read down the list and tick off the words he/she can read instantly (see sample list below). The unrecognised or hesitantly read words will form the student's longer term target list.

Select a short term **list** of words as a target for your student to learn. This can vary depending on the age and ability of the student but is typically 4 to 6 new words. This can be increased or decreased depending on the rate at which the student learns.

2. Teaching Strategy

Following the identification of the target words you then select appropriate teaching strategies. We have given one example below of a teaching strategy, which is based on a direct instruction method. This teaching approach can also be delivered by a parent, peer or a community volunteer under teacher direction and demonstration.

Step 1

Print the short term target words onto card. (This can be varied for older students as flashcards may seem a bit childish for them. Perhaps use PowerPoint to teach new words). Do not use capital letters unless the word starts with a capital letter.

Try not to use card that is too big as it will be cumbersome to store. Make sure you use the same colour and size of card and same colour marker so there is no other way for the pupil to recognise a word. For example a student may know that the green word is *home*, as opposed to recognising *home* as a sight word. Avoid putting similar looking words together as this can make learning harder for students e.g. *home* and *house* or *their* and *they*.

Place each card on the table one at a time and say the name of the word e.g., "this is the word shop". Ask the learner to put the word into an oral sentence. If they have difficulty with this, give them an example and get them to repeat your example or give their own sentence. (Remember if a student doesn't know or understand a word they shouldn't be learning to read it). Repeat this process with all the target words.

Step 2

When all the cards are on the table say the following to the pupil, "Point to the word shop". The **student must look at the word, putting their finger under the first letter of the word and say the word at the same time**. Then say, "Point to the word home……" Continue like this for about 10 or 15 times, moving between the words. Getting the student to place their finger under the first letter cues them into the starting phoneme of the word and keeps them focussed on the word.

This can be done in a fun manner, or as a game. Younger students usually enjoy being told, "Let's see if I can catch you out". This allows the student lots of practise to name the word without putting an expectation on the student to recognise the word from his/her own memory.

Step 3

The next step is to pick up the cards and shuffle them. Place the cards down in a random fashion and ask the student to name the word. Usually students do not have difficulty with this. Repeat this process 3 or 4 times. It may seem tedious but is the essential learning part of the method.

3. Monitoring and charting progress

Following this teaching segment the teacher administers a one minute speed test known as a 'probe'. The probe consists of the words the child has just been taught. The probe gives information on the pupil's accuracy and fluency. Probes are constructed by preparing a list of words just taught, which are repeated randomly.

A simple user friendly probe generator is available from this website www.**johnandgwyn**.co.uk/**probe**.html . (Click on '*smaller print version'* and then save it to your computer. A page will open with numbers 4 onwards, on the very bottom of the page. Click on the number of target words you want in your probe e.g. 4 or 5 or 6 etc. A page with a grid will appear. Type one target word in each of the red squares at the top of the page. The probe will automatically place the words randomly across the grid. An example of a probe sheet with five target words and aim rate is shown on the following pages).

For the pupil to achieve sight word recognition at automaticity or fluency levels they have to read 50 words on the probe within one minute with no more than two errors. Each day following the teaching, the probe is administered and the pupil's progress is charted on a graph/chart until the pupil achieves the aim rate (50 words per minute with no more than 2 errors). Charts can be very motivating for students. To see a sample graph/chart click on www.eptoolbox.co.uk, then click on *Precision Teaching* on the left hand side. When the next page opens, click on *Daily Recording Charts* and a sample chart will open.

If the pupil's rate of reading is not improving after 3 days then the number of words being taught needs to be reduced. If after 8 days the pupil is not at or very near your target rate then you may consider adapting your teaching strategy and reviewing your target words.

Over successive days of practice, the data (corrects and errors) plotted on the chart produces a *learning picture.* When used effectively these *learning pictures* can indicate for each child, whether a task is too difficult, too easy or just right; whether the child requires further instruction, further practice, or should move onto to more complex tasks. Most importantly, the *learning picture* indicates whether the teaching methods being adopted are having the desired effects.

When the aim rate is reached a new set of target words is identified and the process is repeated again and again until the longer term targets can be read automatically.

4. Possible extension work

The following steps are optional but provide extra extension work for students and link in with other key skills.

- Place all the words on the table again and ask the child to point to the word that starts with the sound /s/ or ends with the sound /s/. Pick other letter sounds or letter patterns e.g. /a/, *–ing*, *-and* etc.
- Some words that children are learning may have smaller words within them e.g. *they*, *home*, *caravan*. As an extra piece of work, present words like these to the children one at a time. For example with the word *caravan*, cover the last four letters and ask the pupil, "What word do you see now? *car,* or cover the first four letters and ask the pupil, "What word do you see now? *van*. It doesn't matter if the child doesn't recognise the

words, tell them or prompt them. This is just an exercise to develop their visual skills. If you do this every day they will soon start to see those smaller words.

- A more difficult step from the previous one is to then ask the child to cover letters in the word *caravan* to show you *car* or *van*. Again don't worry if they can't do this, demonstrate for them each time.
- If possible, supplement their daily learning with words they already know, especially their name so sentences can be written with the words they have just been learning.

5. Maintenance Check

It is very important to carry out regular 'maintenance checks' of all target words over a six to eight week period. This involves re-visiting or re-checking the original long term target list of words. Generally pupils who have achieved this level of fluency maintain those words; however any words they haven't maintained can be included in the next list of target words.

It is good practice at the beginning of each session to ask the student to read the words learnt previously.

6. Generalisation

One of the potential difficulties of learning words that are not in context is that the pupil may not generalise their learning to written passages. Therefore, it is important to present the student with unseen passages that contain the target words to see if they can read the words fluently. That is the one advantage of taking the target words from a graded reading scheme. Alternatively teachers can compose passages of text which include the target words.

References

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Ikin, A.B. (2005). Precision teaching: The Standard Celebration Chart. *The Behaviour Analyst Today,* 6(4), 207-213.

Raybould, E. C., & Solity, J. E. (1988). More Questions on Precision Teaching. *British Journal of Special Education,* 15(2), 59-61.

Sample list of words

Jolly phonic tricky words		**Book 1**			
I		shoe		books	
the		the		box	
he		three		bread	
me		tricks		carrots	
was		two		cheese	
to		at		chips	
said		can		dog	
she		did		eating	
we		do		everything	
do		four		favourite	
here		glasses		food	
are		her		fruit	
all		his		has	
you		lollipop		He	
your		look		lots	
come		on		meat	
some		play		milk	
there		see		no	
they		you		of	
go				pets	
by				pizza	
like				reads	
no				she	
so		**Book 2**		teddy	
my		an		toast	
one		apple		toys	
have		banana		vegetables	
live		beans		with	
give		blocks		yogurt	

Sample probe sheet with five target words

said	you	we	the	of
you	the	of	we	said
we	of	you	said	the
you	said	the	of	we
the	we	said	you	of
said	of	the	we	you
of	said	we	you	the
you	the	we	said	of

Word Probe Sheet

Name of child: _____

Baseline: _____ Date: _____

Target: _____ Date: _____

Date: Words:																

Precision Teaching Approaches and Using SNIP

SNIP is a resource pack aimed at increasing the reading ages of pupils with reading ages of 10+. It includes curriculum words and words that often contribute to reading hesitation and are irregular i.e. not phonic.

The packs are intended to be photocopied and a new one given weekly to students who practise them daily and are then timed on their ability to read them out loud. How the reading practice is organised depends on the organisation of each school – some may be able to involve parents, adult helpers and peers, but it is also important to encourage the pupils themselves to practice unaided in order to allow them to gain fluency and control over the process.

SNIP Precision Teaching Pack (credit Carol and Phil Smart). This is a free download and is now in four parts: SNIP Literacy 1 , SNIP Literacy 2, SNIP Literacy 3, SNIP Literacy 4.

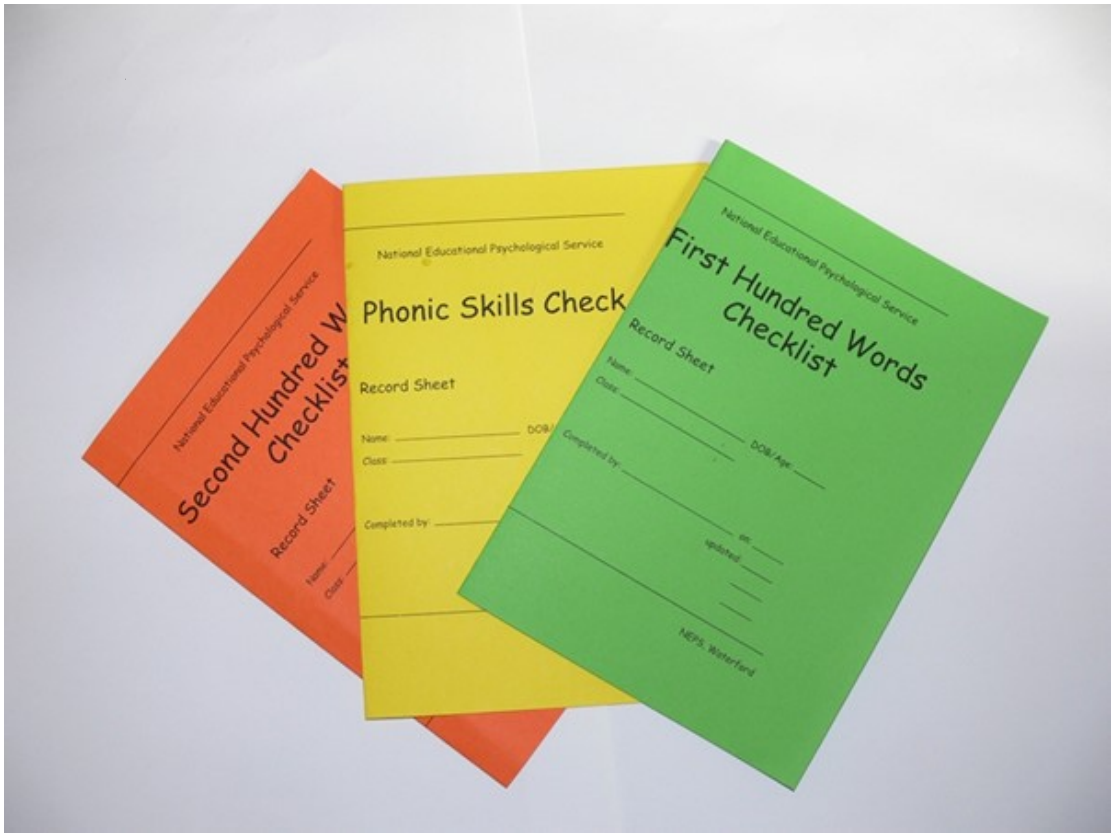
Sample from SNIP

Checklist

Session 1	Read		Spell	
guard				
height				
queue				
straight				
weird				
strength				
weight				
threw				
choose				

Session 2	Read		Spell	
brought				
cloth				
near				
sight				
clothes				
course				
our				
quite				
source				

Checklists for the First Hundred Words, Second Hundred Words and Phonics



These resources have been developed by NEPS to assist teachers who wish to check a student's knowledge of sight words or phonics. They allow for teaching and review of progress and may be particularly suited to using with a precision teaching approach.

Click here to download these checklists

There are extensive resources freely available on theschoolbell.com. Once on this site look at the material labelled Dolch kit. It allows you to make really attractive booklets with sight words set out in 11 lists.

There are, of course, many other ways of teaching sight vocabulary, including teaching vocabulary words in advance of meeting them in text. Teaching sight vocabulary is only one element of a balanced approach to literacy and should form part of a coherent approach to literacy skills.

Teaching Notes

This checklist should be used to note a student's progress in learning a sight vocabulary. That is, the words which a student can read quickly and confidently.

If the student is unsure, guesses, or needs time to sound out a word, it is best to consider that the reading of that word requires more practice.

Put a small tick next to all the words the students knows. Leave unknown words without a mark.

National Educational Psychological Service

First Hundred Words Checklist

Record Sheet

Name: _____ DOB/Age: _____

Class: _____

Completed by: _____ on: _____

updated: _____

_____

_____

1	in	was	is	I	he	11	did	by	if	go	down
2	it	a	the	that	to	12	just	out	your	into	our
3	and	of	are	for	you	13	went	then	well	there	were
4	had	so	have	said	as	14	big	call	back	been	come
5	not	they	with	one	we	15	from	only	first	off	over
6	on	his	at	him	all	16	must	make	more	made	much
7	but	old	be	up	do	17	look	little	some	like	right
8	can	me	came	my	new	18	then	their	when	this	two
9	get	she	here	has	her	19	see	about	could	before	other
10	will	an	no	or	now	20	which	what	where	who	want

1 2

Teaching Notes

This checklist should be used to note a student's progress in learning a sight vocabulary. That is, the words which a student can read quickly and confidently.

If the student is unsure, guesses, or needs time to sound out a word, it is best to consider that the reading of that word requires more practice.

Put a small tick next to all the words the students knows. Leave unknown words without a mark.

National Educational Psychological Service

Second Hundred Words Checklist

Record Sheet

Name: _____ DOB/Age: _____

Class: _____

Completed by: _____ on: _____

updated: _____

_____

_____

1	ask	home	am	house	any	11	sit	blue	say	black	saw
2	yes	every	run	round	very	12	best	don't	bad	read	put
3	got	sat	good	soon	give	13	left	bring	let	green	live
4	boy	dog	play	girl	day	14	next	open	never	own	once
5	tree	too	time	three	take	15	gave	may	find	fly	many
6	hand	Mr.	head	father	mother	16	fell	ran	tell	than	eat
7	men	room	red	man	us	17	stop	help	sing	going	how
8	last	jump	bird	long	four	18	fast	walk	five	keep	found
9	under	year	would	thing	school	19	wish	think	why	these	work
10	after	again	know	always	away	20	white	should	another	woman	because

1 2

National Educational Psychological Service

Phonic Skills Check

Record Sheet

Name: _____ DOB/Age: _____

Class: _____

Completed by: _____ on: _____

updated: _____

_____

_____

Constant Diagraphs

whip shed chat quick thin (/5)

Simple Vowel Diagraphs

deep meat soon foot (/4)

Long "o" Sound

joke road blow rope slow toad (/6)

Long "a" Sound

nail lake way date paid tray (/6)

Long "i" Sound

fine pie high fry tide die sigh cry (/8)

Long "u" Sound

tune few use new (/4)

Letter Sounds

Stage 1

a c t m s (/5)

Stage 2

g o r d n (/5)

Stage 3

i w l k b (/5)

Stage 4

e p j f h (/5)

Stage 5

u v x y z q (/6)

1

Consonant - Vowel

co pe ta li ru (/5)

Consonant - Vowel - Consonant

sip nag pol fed tug (/5)

Final Double Consonant

well mess luck (/3)

Final Blends

melt silk damp risk pest lend junk (/7)

Initial Blends

blot flap crop trim twig spit stem snap (/8)

2

An tSeirbhís Náisiúnta Síceolaíochta Oideachais | National Educational Psychological Service

A Rough Guide to Reading Partners

A cross-age, peer-tutoring approach

This NEPS Good Practice Guide was developed by educational psychologists. It is based on current knowledge in this area. It is intended as a guide only. Not all the suggestions here will apply to any one student or situation.

NEPS LWG 2017

A Rough Guide to Reading Partners- A cross-age, peer tutoring approach

The Reading Partner Scheme

The programme set out here is described as a Reading Partners Scheme. It is a cross-aged peer tutoring approach, in that the tutor would normally be at least two years older than the tutee. It is possible to run such a programme in mainstream primary or secondary schools, or indeed in a special school setting. Schools are encouraged to select children with literacy difficulties to participate in the scheme both as tutors and tutees. Although the terms ***tutor*** and ***tutee*** are preferred in the academic literature, I prefer the terms ***helper*** and ***learner,*** as students can easily understand these terms.

Participation in a Reading Partners Scheme should have a number of benefits;

- increased reading skill of learners and of helpers
- increasing confidence and self-esteem of helpers
- creating a positive attitude to reading for both parties

Managing a Reading Partner Scheme

In order for a Reading Partners Scheme to be successful, a named teacher must have overall responsibility for co-ordinating the programme, and this will need some time allocation. This can be a Special Education Teacher or can be another member of the school staff who can give some time and energy to the project.

Who should participate in such a scheme?

Reading interventions normally target those who need additional help with reading. Schools may choose to target struggling readers, both as readers and as helpers, while others may be invited to participate in order to build their self-esteem or their social skills. Generally, identifying those who need extra help with reading can be done through the schools' own screening and through information from the Class Teachers and Special Education Teacher(s). Participation in a Reading Partner Scheme may be particularly suitable for children at Classroom Support and School Support level intervention, as described in the Continuum of Support documents.

Attendance is a key issue and, if a child has poor attendance, there needs to be some contingency in place to address the needs of the partner. For example, there could be a substitute helper/ learner available.

Models of partnerships include:

- Sixth class helpers working with younger learners
- Transition year students working with First years
- Older special school pupils working with younger special school pupils

Selecting Helpers

Students can be selected by Special Education Teachers, nominated by Class Teachers or can volunteer.

It is important to note that helpers may have reading skills that would be considered delayed in comparison to the mainstream population, and some may even be weak in comparison to their own classroom peers. For example, a fourteen-year old helper may only have a reading age of nine years. In fact, this does not prove to be a difficulty if the helper and learner are carefully matched, with the learner having significantly weaker skills and the helper having at least enough expertise to be helpful to the learner.

When selecting helpers it can be very beneficial for the helper group to include some children with advanced reading skills and/or high social status. This avoids the possibility that participation as a helper is seen as a negative stigma (the scheme is perceived as being for weak readers). A very successful way to engage weaker older readers in the scheme is to 'reframe' their difficulties. For example, while acknowledging that their own reading skills might not be perfect, it is an opportunity to value the work they have done, for example: '*You have made so much progress…are doing so well… and of course, you know what it's like for younger kids when reading is tricky… so you will be really understanding*…' This puts the helper in a positive role. It can be particularly beneficial to sixth class weak readers who may be ready to 'graduate' from a learning support setting and who need to build their confidence before transfer to secondary school.

Matching Partners

There is some initial work in managing the logistics of matching partners. When matching partnerships, it is important to consider both chronological and reading ages. Ideally, there should be at least a two year gap on both, and often times the gap can be considerably greater. Anecdotal evidence suggests that learners prefer their partners to be a number of years older, perhaps because this age difference legitimises the difference in reading ability. Same sex reading partners seemed to work best socially. There may also be factors of personality or social issues to be considered.

A Time, a Place and a Book

Reading partners need to have access to a range of books, including fiction and non-fiction and books with high interest and low reading age. These might be available in the learner's classroom, in the school library or in a resource/ learning support room.

Partnerships should ideally meet three times per week or more. Meetings can happen during lunchtime, at designated times in the school day (such as immediately after lunch) or after school. Each meeting will need approximately 20 minutes. A satisfying block of time for partners to meet might be for one term (approximately 3 months). This time-frame allows for a relationship to build up between the partners, but does not create an unlimited commitment. The model chosen in any one school will depend on the age and maturity of participants, constraints of the time table and availability of suitable space.

Training of Reading Partner Helpers

It is important that the children understand how paired reading works before they begin. Accordingly, helpers need to be trained. This can be done in a single session, delivered by a teacher in the school.

A typical training session might follow the outline below;

- Nominated helpers are invited in a group to a training session.
- They are complimented on their ability to read and praised for their assumed progress over the years.
- Students are also encouraged to reflect on their own experience of learning to read.
- The scheme is briefly outlined and students are told very clearly that participation in the scheme involves a commitment, and their consent is sought before further training progresses.
- The three key tasks are then explained; to remember to go to appointed meeting place at the right time, to listen to a child read, to be friendly.
- The strategy of Pause, Prompt, Praise (outlined below) is explained.
- The process of using these strategies can be role played by adults.
- Helpers then have the opportunity to practice the skill with another helper.

Pause, Prompt, Praise is a simple approach suitable for use by peer tutors (see Wheldall 1995). The procedure involves the following simple steps:

- The learner encounters an unfamiliar word;
- Instead of stepping in immediately and giving the word, the helper waits a few seconds for the learner to work it out;
- If the learner is not successful, the helper prompts the learner by suggesting they perhaps guess from the meaning of the passage, or attend to the initial letter, or read on to the end of the sentence, etc.;
- When the learner cannot get the word after brief prompting, the helper quickly supplies the word;
- The learner is also praised for self-correcting while reading

This initial training only needs about twenty minutes. At this point the matched learners can be invited to join the training. Responsibilities for the learner include remembering meeting times, coming to the appointed place, selecting a book and keeping a record of each session (if the learner is very young, the helper may have this responsibility). The readability of the book chosen is primarily a matter for learner selection. In the event that the book proves 'too hard' during a session, helpers are advised to read it to the learner and, at the end of the session, ask the teacher/ co-ordinator to supply an 'easier' book for next time.

During the second part of the training session these learner responsibilities are described. Both partners complete their first record form together. This gives them a chance to learn each other's names, identify the place where the partnership will meet and make a note of the

meeting days. There is also time for a brief trial reading partner session, closely supervised by the attending adults.

Finally, the incentive of earning a certificate can be introduced to the group. The Reading Partners Certificates can be earned by partnerships that have met successfully over a number of times during the term. Some schools like to offer a hierarchy of awards, for example:

- A certificate for partnerships meeting ten times
- A certificate for partnerships meeting twenty times
- A certificate for completion of the Reading Partners Scheme

In all, the training sessions do not require more than forty minutes.

Monitoring the Reading Partner Scheme

Some amount of monitoring and trouble-shooting may be needed. The most common difficulty is absenteeism of one of the partners, but difficulties may also arise in relation to the selection of books at an appropriate level, the availability of suitable places to meet or personality clashes. It has been found that some ongoing feedback to helpers is helpful in sustaining commitment.

The co-ordinator (and possibility class teachers, depending on the context) needs to take on responsibilities such as remembering to encourage helpers to keep appointments, helping learners to select appropriate books and accommodating partnerships in the classrooms. The reading records, which are the primary source of evidence of attendance, need to be monitored and collected periodically. Certificates need to be awarded as needed. Whenever possible, it is helpful to integrate such a scheme into structures already in place in the school. For example, the reading partner certificates and prizes, can be included in the termly/ annual prize giving assemblies. In some schemes, the Reading Partners' co-ordinator may bring partners to visit the local library as part of the scheme or plan a celebration/party for participants after completion of the scheme.

Conclusion

Peer reading is an effective form of literacy intervention for students in many educational settings. It not only is easily established, but is cost effective. For many participants, not only are there impressive gains in literacy skills, there are also other gains, such as improved self-esteem, attendance and social skills. Dearden (1998) argues that if peer learning '*is of such value to both parties involved, then there needs to be a way of ensuring it happens*' (p257). It is hoped that this Rough Guide will encourage teachers to accept the challenge and implement such a programme in their own schools.

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Reading Partners

Your reading partner is _____

You will be meeting in _____

Your meeting times are_____

Reading Partners

Your reading partner is _____

You will be meeting in _____

Your meeting times are_____

Reading Partner Record Form

For Week Beginning Monday_____

Names _____ and _____

Day/ Date	Book/Page	Comment	Today was…

<u>Help words</u>

good very tried lovely hard worked enjoyed funny boring effort excellent reading

CERTIF

Reading Partner

Awarded to

_____

In recognition of hard work,
co-operation and reliability in the Reading Partner Scheme

_____ _____

Date Signed

Guidance on the Use of Positive Declarations

Psychological research has shown that making bold positive declarations about future reading achievement can have a significant impact on both reading ability and attitude to reading (see McKay 2006).

The following is some guidance for you about how to implement this practice in your own classroom.

<u>The expectation is that each child will make a minimum of 3 positive declarations per day</u> about future reading achievement and the enjoyment of books/ reading. Declarations can be general or specific and can be done individually, in groups or as a whole class group.

Declarations typically begin with the phrase, *I will*…They should be about future reading achievement or enjoyment.

I will become a good reader.
I will be able to read all the words in my word box.
I love books.
I will read lots of books this term.
Reading is fun.

Please feel free to use any of these sample declarations, to generate your own ideas or to encourage the children to propose their own suggestions.

Typically, this kind of intervention runs for about one term. The weekly self-monitoring sheet below may be helpful to you.

NEPS, LWG, 2018

Positive Declarations
Weekly Teacher Self-Monitoring Record Sheet

Class **Week Beginning**

Day	**Time of Day**	**Affirmations used**	Individual **I** Group **G** Whole Class **W**
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Other comments/ Additional activities introduced			

Signed_____

Time of day: this helps you monitor that affirmations are used three times a day, spread throughout the school day
Sample affirmations: no need to write out each affirmation, but just note an example or two to check for variety
Individual, group or whole class: Note whether the affirmations were done collectively or not, if the affirmations are done in a mixed way, for example, some group and some whole class, note G +W etc

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Acronyms

DES	**Department of Education & Skills**
EAL	**English as an Additional language**
EEF	**Education Endowment Foundation**
JCT	**Junior Cycle for Teachers**
NAERM	**National Assessments of English Reading and Mathematics**
NBSS	**National Behaviour Support Service**
NCCA	**National Council for Curriculum & Assessment**
NCSE	**National Council for Special Education Support Service**
NEPS	**National Educational Psychologist Services**
NIPT	**National Induction Programme for Teachers**
NRP	**National Reading Panel**
PDST	**Professional Development Service for Teachers**
PIACC	**Programme of the International Assessment of Adult Competencies**
PIRLS	**Progress in International Reading Literacy Study**
PISA	**Programme for International Student Assessment**

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Appendix 1 International Definitions of Literacy

PISA (Programme for International Student Assessment)

PISA states that reading must be considered across the varied ways in which citizens interact with text-based artefacts and emphasises how reading is part of life-long learning. The PISA 2018 definition of Reading Literacy is as follows:

Reading literacy is understanding, using, evaluating, reflecting on and engaging with texts in order to achieve one's goals, to develop one's knowledge and potential and to participate in society.

PIRLS (Progress in International Reading Literacy Study) 2016

The PIRLS definition of reading literacy has been elaborated so that it is applicable to readers of all ages and including a broad range of written language forms. It also makes explicit reference to aspects of the reading experience of young students as they become proficient readers, highlights the widespread importance of reading in school and everyday life, and acknowledges the increasing variety of texts in today's technological world. Currently, the PIRLS definition of reading literacy is as follows:

Reading literacy is the ability to understand and use those written language forms required by society and/or valued by the individual. Readers can construct meaning from texts in a variety of forms. They read to learn, to participate in communities of readers in school and everyday life, and for enjoyment.

PIACC (Programme of the International Assessment of Adult Competencies)

The PIAAC literacy framework provides a broad definition of literacy:

Literacy is understanding, evaluating, using and engaging with written text to participate in the society, to achieve one's goals and to develop one's knowledge and potential."

This definition highlights the ranges of cognitive processes involved in literacy, focuses on a more active role of individuals in the society, and (c) includes a range of text types, such as narrative and interactive texts, in both print and electronic formats.

Appendix 2 Theoretical Perspectives on Literacy Development

This resource does not allow for an in-depth review of the various theoretical perspective of literacy development. An excellent overview is presented in the NCCA document, **Literacy in Early Childhood and Primary Education** (NCCA, 2012) and can be accessed HERE. The following extract from that document gives a brief summary:

An historical overview of a broad range of theoretical perspectives on young children's early literacy development indicates three paradigm shifts – from behaviourist to cognitive to socio-cultural perspectives.

In the case of a number of perspectives we see how the associated theory shaped what are now generally accepted maxims about literacy development. For example, arising from the work of cognitive psychologists there is now widespread acceptance of the idea that phonological awareness is a critical aspect of early literacy development. The emphasis placed on reading for meaning is seen to arise from the psycholinguistic perspective. Metacognitive theories emphasise the role of metacognitive processes in reading, writing and spelling while cognitive apprenticeship models have led to the emphasis that is placed on children developing problem-solving skills in literacy-related activity through the assistance of a more knowledgeable other. Socio-cultural theories of literacy are identified as those which emphasise the role that culture plays in the development and practice of literacy, the social nature of learning (including observing how others construct meaning within literacy practices, and in some instances internalising understanding of those processes), and the way in which literacy practice is located within wider social, economic and political contexts. Critical literacy is seen to empower children in understanding how texts may influence and change them as members of society.

Making meaning using various modes is identified as part and parcel of young children's communicative practices. Examples of modes included children's use of gesture and their construction and use of images. The strategic ways in which young children use modes and their purposeful intent in selecting particular modes for particular purposes emphasised how multimodality makes explicit the ways in which power and agency are exercised by children in their meaning making in relation to texts. Finally, theoretical perspectives emphasising the key role in literacy learning of children's motivation, engagement and sense of self efficacy are reviewed. Disposition and a sense of being able emerge as crucial components in young children's literacy development.

Appendix 3 The National Literacy and Numeracy Strategy 2011-2020

In July 2011 the National Literacy and Numeracy Strategy - *Literacy and Numeracy for Learning and Life 2011-2020* - was published. The Strategy defined literacy as follows:
Literacy includes the capacity to read, understand and critically appreciate various forms of communication including spoken language, printed text, broadcast media, and digital media.

The Strategy set out to raise standards in literacy in early years and school settings. It recognised the importance of these key skills for all aspects of day-to-day life and learning. The mid-term impact of the strategy was reviewed in 2015 and it showed that standards in literacy had risen.

- National Assessments of English Reading and Mathematics (NAERM) carried out in 2014 have shown the first significant improvements in performance by primary pupils in English reading in 2nd and 6th Classes in over 30 years.
- Ireland is in third position for reading out of all 35 OECD countries in the 2015 PISA survey of 15 year old students.
- Fewer of our students are now in the lowest performing category for reading in PISA 2015, compared with previous PISA studies.

These results are to be welcomed and may be viewed as a positive indicator that focused interventions can succeed. The improvements made to date should encourage teachers to sustain the focus on targeting literacy. However, the interim review acknowledged that more work needed to be done to close the gap in literacy achievement between schools with the highest concentration of disadvantage and other schools.

As recently as October 2018, UNICEF ranked Ireland second out of 41 wealthy nations in promoting educational equality between children. The report looked at the gap in reading scores between the lowest and highest-performing students in both primary school and secondary school. The ranking results for Ireland show that inequality among children decreases as they move from early childhood education to primary school and on to secondary school. However, with one in 10 students not reaching basic proficiency in reading by secondary school, when aged about 15 years, there is clearly work to be done. As rates of low attainment are falling, it is all the more imperative to ensure that struggling readers do not become isolated in schools and in society.

The interim review of the Strategy set new targets for 2017-2020, with a particular focus on DEIS schools, where the highest concentration of low-level attainment is seen. There is particular concern that some children in DEIS schools experience a slower pace of instruction, fewer opportunities to read, write and discuss extended text, with a heavier emphasis on basic skills. Overemphasis on basic skills is particularly problematic if it occurs in the absence of meaning-orientated instruction.

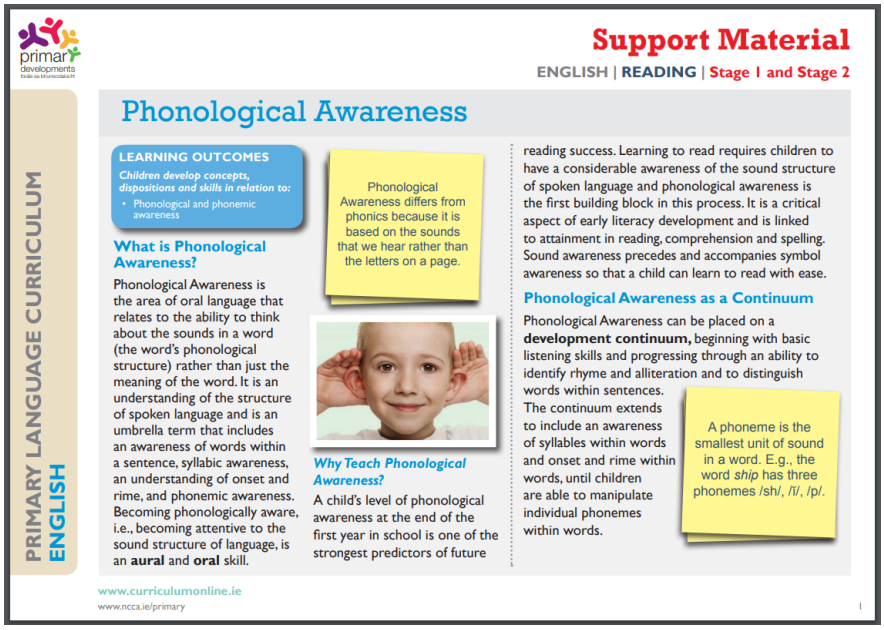
Appendix 4 The Primary Language Curriculum

The needs of all learners are best considered within the context of the curriculum that is offered to them. The **Primary Language Curriculum (DES, 2015)** identifies a first language (Language 1) and a second language (Language 2) in Irish primary schools and whether Language 1 is English or Irish is determined by the language and teaching learning context of the school. Irrespective of which is Language 1, there is an integrated approach to language teaching and learning, with 3 key strands: oral language, reading and writing. This *Effective Interventions* resource is focused on the reading strand of the curriculum, although, of course, the three strands overlap in a holistic experience.

There are four interconnected components including learning outcomes, progression continua, support material and examples. The progression continua for reading contains milestones and steps which are helpful to the teacher in planning intervention. These continue to set out differentiated outcomes for pupils at all levels. Teachers should be able to move fluidly between the interventions set out in this document and the progression continuum in the Primary Language Curriculum.

The Primary Language Curriculum is supported by the Primary Language Toolkit and there are a range of on-line resources to support teachers. These resources offer a solid grounding in quality teaching and learning for all children.

With regard to students who have English as an Additional language (EAL), the Primary Language Curriculum recognises that children transfer many language and literacy skills from English to Irish and to other languages, and that this is a reciprocal relationship, with learning in any language, benefitting language development in additional languages. Teachers can help children transfer linguistic skills and concepts form their first to their second or third languages. This transfer of learning can be particularly helpful to children who struggle with literacy.



primary developments

Support Material

ENGLISH | READING | Stage 1 and Stage 2

PRIMARY LANGUAGE CURRICULUM ENGLISH

Phonological Awareness

LEARNING OUTCOMES

Children develop concepts, dispositions and skills in relation to:

- Phonological and phonemic awareness

What is Phonological Awareness?

Phonological Awareness is the area of oral language that relates to the ability to think about the sounds in a word (the word's phonological structure) rather than just the meaning of the word. It is an understanding of the structure of spoken language and is an umbrella term that includes an awareness of words within a sentence, syllabic awareness, an understanding of onset and rime, and phonemic awareness. Becoming phonologically aware, i.e., becoming attentive to the sound structure of language, is an **aural** and **oral** skill.

Phonological Awareness differs from phonics because it is based on the sounds that we hear rather than the letters on a page.

Why Teach Phonological Awareness?

A child's level of phonological awareness at the end of the first year in school is one of the strongest predictors of future reading success. Learning to read requires children to have a considerable awareness of the sound structure of spoken language and phonological awareness is the first building block in this process. It is a critical aspect of early literacy development and is linked to attainment in reading, comprehension and spelling. Sound awareness precedes and accompanies symbol awareness so that a child can learn to read with ease.

Phonological Awareness as a Continuum

Phonological Awareness can be placed on a **development continuum,** beginning with basic listening skills and progressing through an ability to identify rhyme and alliteration and to distinguish words within sentences. The continuum extends to include an awareness of syllables within words and onset and rime within words, until children are able to manipulate individual phonemes within words.

A phoneme is the smallest unit of sound in a word. E.g., the word *ship* has three phonemes /sh/, /I/, /p/.

www.curriculumonline.ie

www.ncca.ie/primary

1

Appendix 5 Junior Cycle and Post-Primary Context

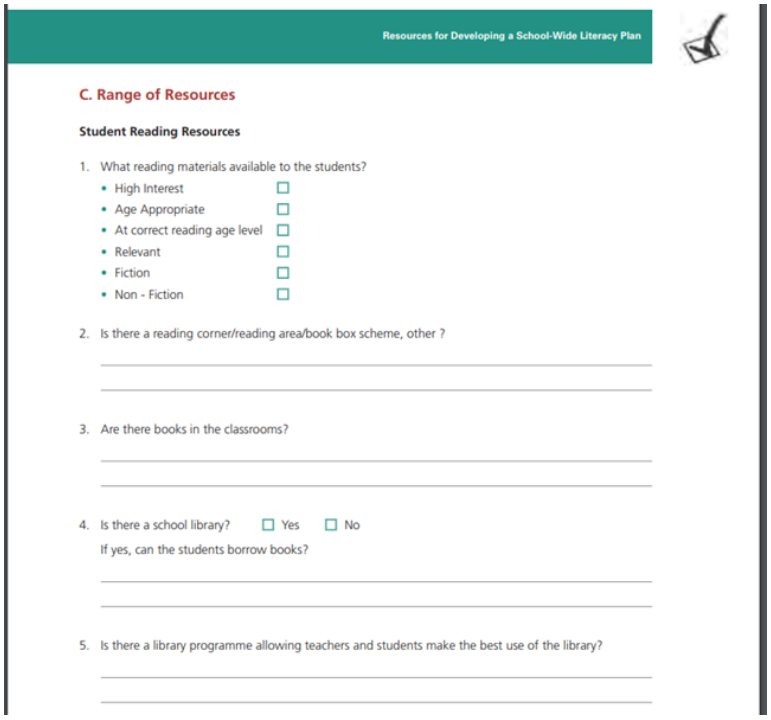
At the **post-primary level,** the **Junior Cycle Curriculum** places emphasis on the development of key skills across the curriculum, including the skill of reading. The 24 statements of learning that are at the core of the Junior Cycle include the following:

	The Student
1	Communicates effectively using a variety of means in a range of contexts in L1
2	Listens, speaks, reads and writes in L2 and one other language at a level of proficiency that is appropriate to her or his ability
3	Creates, appreciates and critically interprets a wide range of texts

This means that literacy is central across Junior Cycle and explicit links between each subject and the key skill of 'Being Literate' are found in each subject specification. Subject teachers need to be particularly mindful of explicitly teaching core vocabulary and of supporting students to apply reading comprehension strategies as part of their core work, irrespective of the subject specialism.

The NCCA have developed a range of resources including a curriculum specification, assessment guidelines, and examples of student work and there are more detailed specification about literacy within the English curriculum. https://www.curriculumonline.ie/Junior-cycle/Junior-Cycle-Subjects/English. This subject specification affirms the integrated nature of the development of literacy skills and the requirement to engage with a broad range of texts. Reading Learning Outcomes support the development of fluent, meaningful reading and the ability to apply reading comprehension strategies across a wide range to texts, including digital and multimodal texts. Therefore, the work of the English subject teacher will continue to support whole school approaches to literacy development and the work of the special education teacher.

The resource, **Junior Cycle Schools Programme: Resources for Developing a School-Wide Literacy Plan (2008)**, helps post-primary schools evaluate their current practice and plan to strengthen and develop that practice. To learn more click HERE.



Resources for Developing a School-Wide Literacy Plan

C. Range of Resources

Student Reading Resources

1. What reading materials available to the students?
   - High Interest ☐
   - Age Appropriate ☐
   - At correct reading age level ☐
   - Relevant ☐
   - Fiction ☐
   - Non - Fiction ☐
2. Is there a reading corner/reading area/book box scheme, other ?
3. Are there books in the classrooms?
4. Is there a school library? ☐ Yes ☐ No
   If yes, can the students borrow books?
5. Is there a library programme allowing teachers and students make the best use of the library?

Additionally, the NCCA have developed **Level 1 and Level 2 Learning Programmes** which are targeted at very specific groups of students. The Level 2 programmes are for those with general learning disabilities in the higher functioning moderate and low functioning mild categories, while Level 1 programmes are for those with general learning disabilities in the range of lower functioning moderate to severe and profound categories. Both Level offer Priority Learning Units in the area of Communication and Literacy.
https://www.ncca.ie/en/junior-cycle/level-one-and-level-two-programmes

Supporting the progress of those with General Learning Difficulties is the **Curriculum Access Tool.** This is a framework to assist teachers in implementing the curriculum for students with general learning disability and includes detailed descriptors across a range of areas in the domain *Communication and Language*. The Curriculum Access Tool is available HERE.

Strand - Reading

Strand Unit - Receptiveness to Language (Reading)

Developing Concepts of Language and Print

Developing Strategies

Strand Unit - Competence and Confidence in using Language (Reading)

Developing Reading Skills and Strategies

Reading for Pleasure and Information

Strand Unit - Developing Cognitive Abilities through Language (Reading)

Developing Interests, Attitudes and the Ability to Think

Developing Interests, Attitudes, Informati Retrieval Skills and the Ability to Think

Strand Unit - Emotional and Imaginative Development through Language (Reading)

Responding to Text (1)

Responding to Text (2)

Curriculum Access Tool

General Learning Disability (CAT-GLD)

SPECIAL EDUCATION SUPPORT SERVICE

Student Name:

Curriculum Skill: "*Developing Reading Skills and Strategies*"

GLD Level: Mild

Curricular Area: Communication and Language

Curricular Strand: Reading

Strand Unit: Competence and Confidence in using Language (Reading)

	PHASES IN SKILL DEVELOPMENT					
		Attained			Extended	
	Acquiring	Becoming Fluent	Maintenance	Generalisation	Application	Adaptation
experience the reading process being modelled						
handle books and browse through them						
encounter early reading through collaborative reading of large-format books and language-experience material						
build up a sight vocabulary of common words from personal experience, from experience of environmental print, and from books read						
learn to isolate the beginning sound of a word or syllable						

Appendix 6 Department of Education and Skills Policy and Guidance

All the advice and guidance within this resource should be considered alongside other Department of Education and Skills publications and policy. The DES have already produced a wide range of resources to support the inclusion of all children with special educational needs, and indeed the **Learning Support Guidelines of 2000** had a particular focus on those with literacy and numeracy difficulties and continues to be relevant today. See DES Learning Support Guidelines (DES, 2000)

The DES further developed guidance on how schools can best allocate additional teaching resources in Circular SP/ ED 02/05.

The DES has been keen to promote a staged approach to supporting students with additional needs and this was articulated in Circular 24/03 (see Appendix 1 of that Circular). Since then, the NEPS Continuum of Support has further developed the concept of a staged approach and NEPS resources have been developed for both primary and post-primary schools.

From 2017, the new approach to the allocation of special education teachers, gave schools more flexibility in allocating special educational teachers to students. The change in the way that teachers were allocated was supported by a range of Circulars and Guidance.

The **NEPS Student Support File** (revised 2016) is a generic Support Plan template, which can be used across the Continuum of Support. It can be freely downloaded in a word format (The Student Support File) allowing teachers to edit as needed. There is also guidance about how best to use the format. See the Guidance Here.

Primary Level

Guidelines for Primary Schools, Supporting Students with Special Educational Needs in Mainstream Schools (2017)

Special Educational Needs: A Continuum of Support: Guidelines for Teachers (2007)

Special Educational Needs: A Continuum of Support: Resource Pack for Teachers (2007)

Post-Primary Level

Inclusion of Students with Special Educational Needs: Post-Primary Guidelines (DES, 2007)

Guidelines for Post-Primary Schools, Supporting Students with Special Educational Needs in Mainstream Schools (2017)

Special Educational Needs: A Continuum of Support for Post-Primary Schools: Guidelines for Teachers (2010)

A Continuum of Support for Post-Primary Schools: Resource Pack for Teachers (2010)

Appendix 7 What Works Clearing House (WWC)

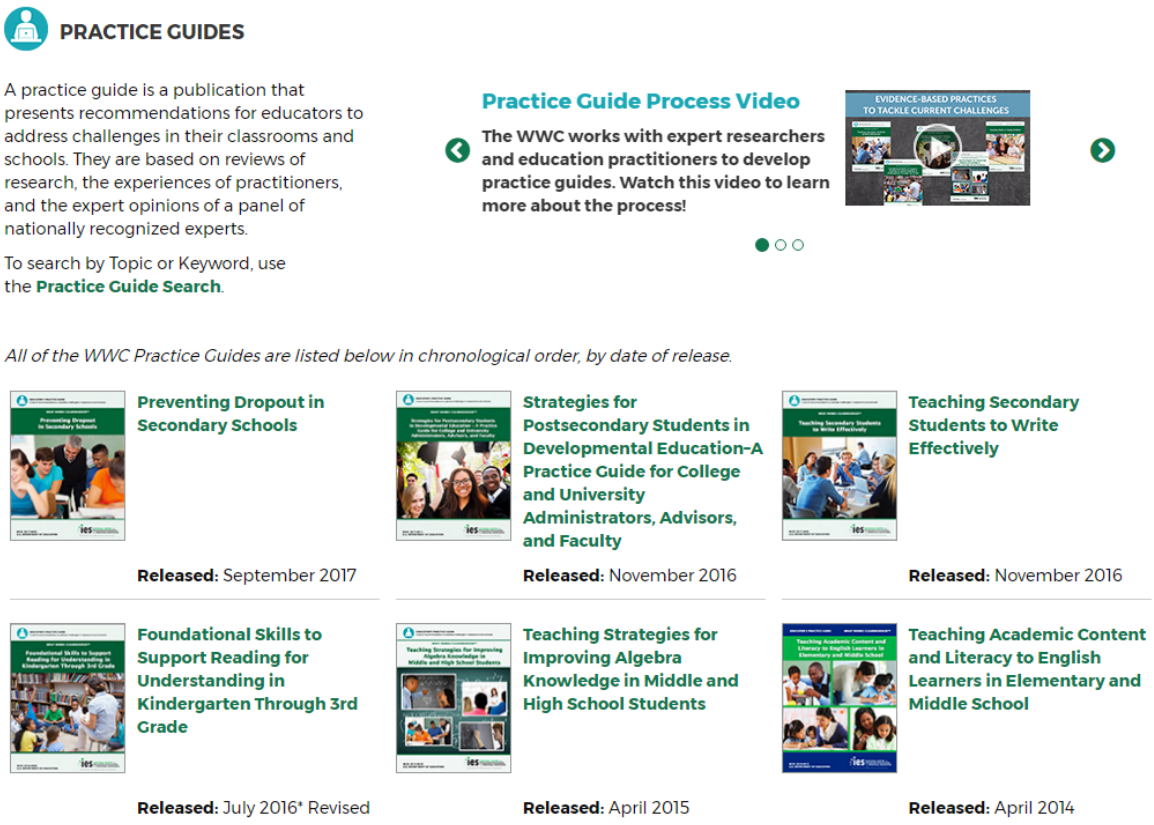
The What Works Clearing House is a section of the Institute of Education Sciences in the US, which,

'*…reviews the existing research on different programs, products, practices, and policies* in *education. Our goal is to provide educators with the information they need to make evidence-based decisions. We focus on the results from high-quality research to answer the question "What works in education?"*'

They publish **practice guides** '*to bring the best available evidence and expertise to bear on the types of systemic challenges that cannot currently be addressed by single interventions or programs*.' Relevant practice guides over the last number of years include:

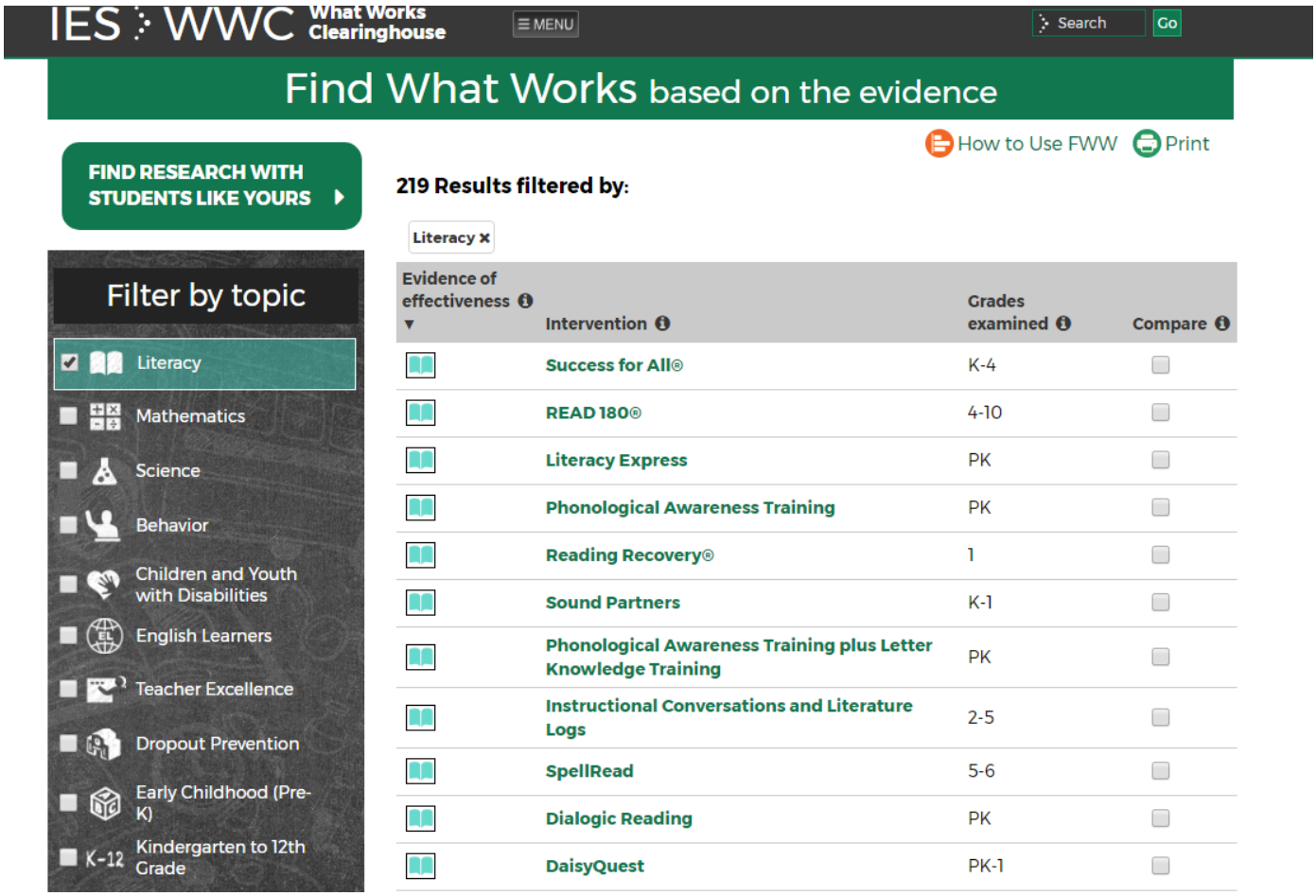
- Improving Adolescent Literacy: Effective Classroom and Intervention Practices (Kamil et al, 2008).
- Assisting Students Struggling with Reading: Response to Intervention (RtI) and Multi-Tier Intervention in the Primary Grades (Gersten et al, 2009).
- Teaching Academic Content and Literacy to English Learners in Elementary and Middle School (Baker et al 2014).
- Teaching Secondary Students to Write Effectively (Graham et al, 2016).
- Foundational Skills to Support Reading for Understanding in Kindergarten through 3rd grade (Foorman et al, 2016)

Figure 1. Sample of Practice Guides from What Works Clearing House



The WWC also produces detailed analysis of specific literacy interventions, known as **intervention reports**, which summarises the findings of high quality research on a given program, practice, or policy in education. However, the interventions, such as the 2016 review of *Read 180* are very much American and often not yet widely available in Ireland. However, the data analysis is of the highest standard and often interventions that have been trialled in the US can be successfully implemented in Ireland.

Figure 2. Sample of Intervention Reports Available on What Works Clearing House



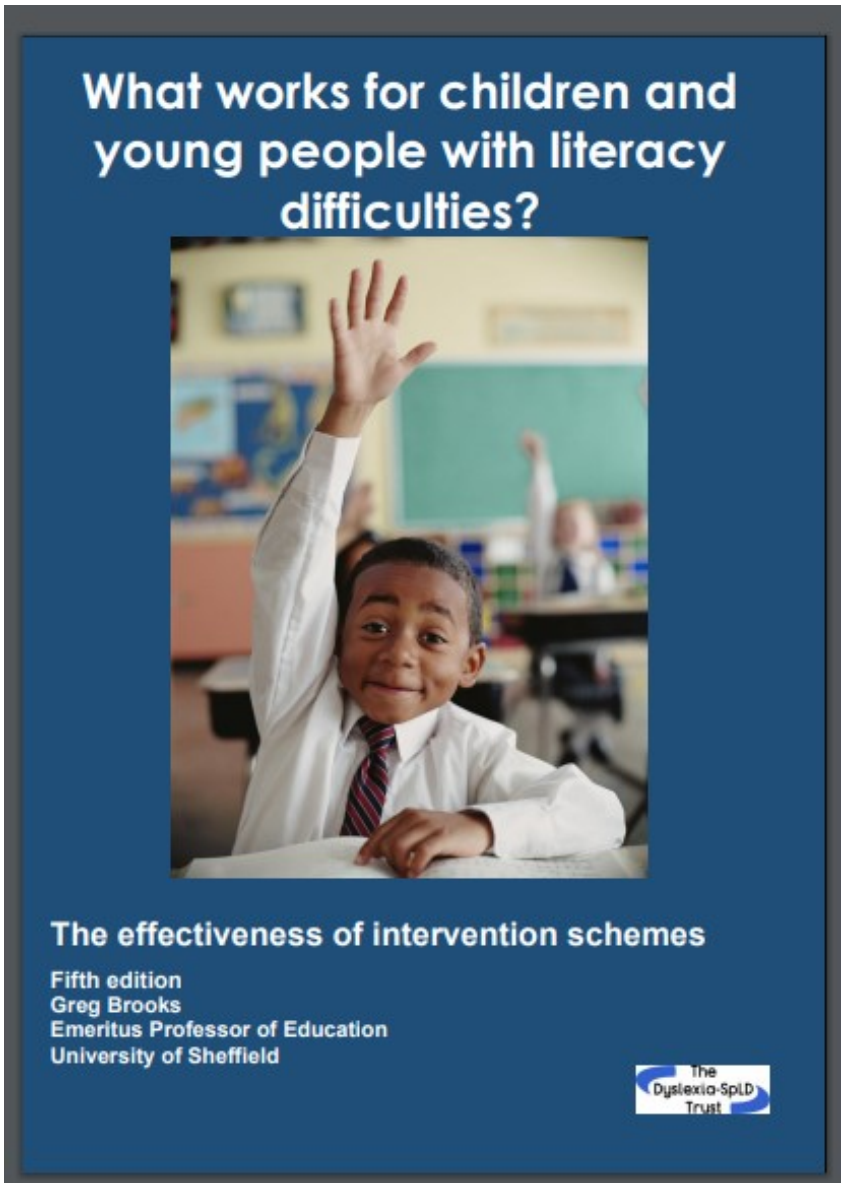
Appendix 8 The Education Endowment Foundation

In the UK, the Education Endowment Foundation (EEF) is an independent charity dedicated to breaking the link between family income and educational achievement. Their focus is on young people aged 3-18 years. Their work aims to provide teachers with free, independent and evidence-based resources, to improve learning outcomes. They both review evidence and generate evidence. Since March 2013, the EEF and the Sutton trust were jointly designated by the UK Government as a 'What Works Centre for Education'. Language and Literacy is one of 12 key themes, and they produce Teaching and Learning Toolkits, Project Reports and Guidance Reports. All the literacy information from the EEF was reviewed for this second edition of Effective Interventions.

Figure 3. Education Endowment Foundation- Sample resources

Appendix 9 What Works- Greg Brooks .

Another key source of information for this good practice guide, is 'What works for Children and Young people with Literacy Difficulties', by Greg Brooks. This comprehensive resource reviews individual intervention programmes used in the UK. This document also gives an excellent overview of research methods and of how best to measure progress in literacy. It is now in its fifth edition (2016). This resource is free to download. What Works for Children and Young People with Literacy Difficulties.



Appendix 10 Submissions made for 2019 Revision of Effective Interventions

In 2016, NEPS began a process of data collection for this revised, second edition of Effective Interventions for Struggling Readers.

The search strategy involved an email invitation to the following institutions and people:
Education Research Centre, Drumcondra
Inspectorate, Department of Education and Skills
Special Education Support Service
National Behaviour Support Service
Professional Development Service for Teachers
Teaching Council of Ireland
Curriculum and Assessment Unit, Department of Education and Skills
All Teacher Training Colleges and Course Directors of Special Education Teacher Training Courses and Educational Psychology Training Courses (17 academic contacts in 11 institutions)
All NEPS psychologists

The text of the email is reproduced here.

You may be familiar with the NEPS publication, ***Effective Interventions for Struggling Readers*** (first published in 2011). As you may know, this web-based resource aims to support teachers in helping struggling readers by highlighting international research evidence about best practices and introducing a range of interventions which have proved successful in Irish schools.

http://www.education.ie/en/Education-Staff/Information/NEPS-Literacy-Resource/neps_literacy_good_practice_guide.pdf

We are now revising this publication and are looking for your assistance. We are **trying to collect data about interventions that have been successful in the Irish context**.

The criteria for inclusion are as follows:

- The intervention must have been used in Ireland
- The intervention must target school aged struggling readers (age range 5 to19 years). Struggling readers includes all those who struggle- dyslexic type difficulties/ low general ability/ disadvantaged/ English as an additional language/ unexplained reading failure etc.
- Research data about the efficacy of the intervention must have been collected in the last five years (2011-2016)
- The data must include some form of standardised measurement of literacy skills (so teacher, pupil or parent opinion is not enough- there must be literacy attainments).
- Data can be published or unpublished, but we will need details about the source of the data, to enable us to check it thoroughly.

We would be particularly glad to hear of data that teachers might have collected within their schools, but any Irish based data is welcome. Please feel free to pass this email to any colleagues who may be interested.

In total, 23 submissions were received. The following table sets out the data submitted or sourced in this process. It also indicates the source of the data. Not all studies could be included in this edition. The most common reason for not including data was that the information provided did not meet all the inclusion criteria set out above. This does not imply that the interventions cited are not suitable for use in Irish schools, just that current data available to the reviewers was not robust enough to justify inclusion in Section 5.

Some studies were very small scale, with a small number of participants. There are obvious limitations associated with this, and we need to exercise caution about extrapolating from small samples. However, it was decided not to exclude such small scale studies for two main reasons: some of these studies focused on children with very specific difficulties, such as the hearing impaired, where there is already a dearth of research and where it can be particularly difficult to marshal a larger participant pool. The other reason for including such small sample studies is that we wanted to value and encourage action research undertaken by teachers, psychologists, educationalists and students.

Submissions Made to NEPS for 2019 Revision of Effective Interventions for Struggling Readers

Name/ Source of Submission	Affiliation (if any)	Title	Published Y/N Date
Byrne, Eimear and Parkinson, Suzanne	Mary Immaculate College	An Evaluated of the Efficacy of the Accelerated Reader programme in Irish Primary Classrooms	Unpublished
Crowley, Aleisha	MA Educational Psychology Mary Immaculate College	A Precision teaching approach to teaching sight-vocabulary to young adults with moderate intellectual ability.	Unpublished 2016
Dalton, Michelle	MA Special Educational Needs, St Patrick's College, Drumcondra	A Collaborative Literacy Intervention to Improve the reading Skills of Children with Reading Difficulties in second class in a designated disadvantaged school. (Literacy Lift-Off)	Unpublished 2016
Fitzgerald, Kathryn	Post primary school, Cork & Cork Education Centre	Reading Project- Final Report Exploring the Literacy Landscape- Celebrating 40 years of Research and Practice. Literacy Association of Ireland	Published 2017
Griffin, Claire & Murtagh, Lelia	Mary Immaculate College & UCD	Increasing the sight vocabulary and reading fluency of children requiring reading support: the use of a Precision Teaching Approach	Published 2015
Higgins, Edel, Fitzgerald, Johanna & Howard, Siobhan	Mary Immaculate College	Literacy Lift Off: An experimental evaluation of a reading recovery programme on literacy skills and reading self-concept.	Published 2015
Higgins, Shirley, Creagh, Sandra & Allen, Maria	SESS	LEAPing on with Language (Seminar)	Unpublished 2016
Lohan, Adrian	DEIS Band 1 school	Intervention focusing on Vocabulary and Comprehension	Unpublished 2016
Lohan, Adrian & King, Fiona	NBSS	A Cross-age Peer Tutoring Programme Targeting the Literacy Experiences of Pupils with Social, Emotional and Behavioural Difficulties (SEBD) and Pupils with Low Levels of Literacy Achievement	Publication pending 2016
Mannion, Lydia	Mary Immaculate College BEd.	Precision Teaching through Irish: Effects of Reading Fluency & Attitudes towards the Language	Unpublished 2016
McGonagle, Brid & Donoghue, Stephanie	NEPS	Early Intervention for children at risk of reading failure	Unpublished 2016

Midwest School for the Deaf	Special School, Limerick	Data relating to pre and post intervention literacy sores for children using Edmark (kindly provided by Maria Allen).	Unpublished 2018
Mullan, Yvonne	NEPS	An intervention to improve the literacy skills of deaf children,	Published 2012
National Behaviour Support Service	NBSS	Catch-Up Literacy: A NBSS Level 3 Intervention to Support Struggling Readers	Published 2014
National Behaviour Support Service	NBSS	The Vocabulary Enrichment Programme: An Intervention to Improve Vocabulary Skills with First Year Students	2014 (2)
O'Donoghue, Siobhan	Reading Recovery tutor/ PDST	Wide range of documents and data. See references section	Published Various
O'Rourke, Diarmuid	NEPS	Making Use of High Quality Assessment Data to Inform Learning Support Provision for Struggling Readers in a Secondary School	Published 2016
O'Rourke, Diarmuid & Olshtroon, Aoife & O'Halloran, Claire	NEPS	The Limerick reading Initiative: A Reading Intervention Targeted at Struggling Readers in Primary School	Published 2016
O'Shaughnessy, Carol	Secondary School, Waterford & MA in Sp Ed UCC	Thesis and additional data about collaborative teaching and comprehension strategies.	Unpublished 2017
Power, Angela	Oliver Plunkett Special Reading School	Data from Specialist Reading School using Wilson Reading Programme	Unpublished 2017
Scannell, Edmond	Trained as a trainer by Metametrics (Lexile)	Reading and Motivation to read after 12 weeks of using Lexile Frameowrk	Unpublished 2016
Sheahan, Neasa	Catherine McAuley, Special Reading school	Data from Specialist Reading School using Wilson Reading Programme	Unpublished 2017
SUAS	SUAS- A not for profit agency	Unpublished data, DEIS volunteering projects	2016 & 2017
Treacy, Rita	SLT, with NBSS & CAINT & UL	Wordsworth 5 studies 2009-2017	Unpublished 2009-2017

Appendix 11 The Lexile Framework

One approach to ensuring that children are matched to text which is at the correct level, is the use of the Lexile Framework. This is a readability formula and is the most widely adopted approach in the US. It offers a common scale for matching reading ability with text. The ***Lexile reader measure*** describes the reading ability of an individual. Many US normed assessments report student reading ability as a Lexile measure. Equally, a Lexile text measure represents a text's level on the Lexile scale. The ***Lexile text measure*** describes the semantic and syntactic features of a book, article or text. The Lexile Analyzer measures the complexity of the text by breaking down the entire piece and studying its characteristics, such as sentence length and word frequency, which represent the syntactic and semantic challenges that the text presents to a reader.

By finding a child's reading ability according to a Lexile measure and finding the Lexile measures of books, a match can be made between the child's ability and the reading material. This means that children are reading material at the appropriate level for them, sometimes referred to as the 'Goldilocks' level- not too hard and not too easy, just right. The Lexile reader measure can also be used to monitor a reader's growth in reading ability over time. It allows teachers to monitor student progress and to create tailored reading lists.

There is some evidence that, using Lexile measures, students in Irish schools can make ratio gains of 1.5 to 2, after a 12 week programme of reading tuition (Progress Reading 360). These results are particularly impressive in that many of the participants in this study attended a special school for children with a Mild General Learning Difficulty and therefore, might not be expected to make even typical rates of progress.

Lexile measures are often preferred to age-banding of books. Age-banding can be misleading, but also stigmatising for struggling readers, who may not wish to be seen to read a book at a 'younger' age level. The picture below is an example of a school colour coding a 5th classroom library. The children are allowed choose books within their colour range. Classrooms should ensure that there is a wide range of fiction and non-fiction high quality books at each level.

The higher the Lexile measure, the higher the student's reading level. The reader's Lexile Framework works in intervals of five with 5L being the lowest. The highest possible measure is 2000L. Once a lexile level is established, books at a similar level can be found on the following website: www.librarything.com .

The Lexile Framework

The Lexile Framework® for Reading Map

Matching Students to Books!

Matching students to texts at appropriate levels helps to increase their confidence, competence, and control over the reading process. The Lexile Framework for Reading is a reliable and tested tool designed to bridge two critical aspects of student reading achievement—leveling text difficulty and assessing the reading ability of each student.

GRADE LEVEL	LEXILE LEVEL	BENCHMARK LITERATURE		SAMPLE TEXT PASSAGES
	1700L	First Inaugural Address *by George Washington*	1700	**The Life and Times of Frederick Douglass** It was not long, however, before I began to learn the sad fact that this house of my childhood belonged not to my dear old grandmother, but to someone I had never seen, and who lived a great distance off. I learned, too, the sadder fact, that not only the home and lot, but that grandmother herself and all the little children around her, belonged to a mysterious personage, called by grandmother, with every mark of reverence, 'old master'. Thus early, did clouds and shadows begin to fall upon my path.
		The Good Earth *by Pearl S. Buck*	1530	
		The Life and Times of Frederick Douglass *by Frederick Douglass*	1400	
		Silent Spring *by Rachel Carson*	1340	
		Great Expectations *by Charles Dickens*	1200	
	1200L			
		The War of the Worlds by *H. G. Wells*	1170	**Ethan Frome** Ethan's love of nature did not take the form of a taste for agriculture. He had always wanted to be an engineer, and to live in towns, where there were lectures and big libraries and "fellows doing things." A slight engineering job in Florida, put in his way during his period of study at Worcester, increased his faith in his ability as well as his eagerness to see the world; and he felt sure that, with a "smart" wife like Zeena, it would not be long before he had made himself a place in it.
		Animal Farm *by George Orwell*	1170	
		Ethan Frome *by Edith Wharton*	1160	
		A Separate Peace *by John Knowles*	1110	
		Pride and Prejudice *by Jane Austen*	1100	
	1100L			
12		Anne Frank: The Diary of a Young Girl *by Anne Frank*	1080	**20,000 Leagues Under the Sea** What a spectacle! How can I depict it? How describe the aspect of the woods and rocks in this liquid element, their lower parts sombre and wild, the upper colored with red tints in the light which the reverberating power of the water doubled? We were climbing rocks which fell in enormous fragments directly afterwards with the noise of an avalanche. Right and left were deep dark galleries where sight was lost. Here opened vast clearings that seemed made by the hand of man, and I asked myself sometimes if some inhabitant of these submarine regions was not about to appear suddenly.
11		One More River to Cross: The Stories of Twelve Black Americans *by Jim Haskins*	1070	
10		20,000 Leagues Under the Sea *by Jules Verne*	1030	
9		The Pearl *by John Steinbeck*	1010	
	1000L	Freak the Mighty *by Rodman Philbrick*	1000	
		Exploring the Titanic *by Robert Ballard*	980	**Abracadabra Kid: A Writer's Life** The Panama Canal disgorged us out into the Pacific Ocean, where I felt right at home. We paused to take on fuel in the bleak Galápagos Islands. I was dimly aware that somewhere in these South American waters Alexander Selkirk had been marooned, inspiring the tale of Robinson Crusoe. I wondered if someday I might use these remote, moody islands as story background, and made a few mental notes. Rocky. Scraggly yellow weeds. Sharks in the bay.
		Beauty: A Retelling of the Story of Beauty and the Beast *by Robin McKinley*	970	
		The Abracadabra Kid: A Writer's Life *by Sid Fleischman*	940	
8		Dogsong *by Gary Paulsen*	930	
	900L	Roll of Thunder, Hear My Cry *by Mildred Taylor*	920	
7		Anthony Burns: The Defeat and Triumph of a Fugitive Slave *by Virginia Hamilton*	860	**Julie of the Wolves** Propped on her elbows with her chin in her fists, she stared at the black wolf, trying to catch his eye. She had chosen him because he was much larger than the others, and because he walked like her father, Kapugen, with his head high and his chest out. The black wolf also possessed wisdom, she had observed. The pack looked to him when the wind carried strange scents or the birds cried nervously. If he was alarmed, they were alarmed. If he was calm, they were calm. Long minutes passed, and the black wolf did not look at her.
		Julie of the Wolves *by Jean Craighead George*	860	
		Johnny Tremain *by Esther Forbes*	840	
		Call It Courage *by Armstrong Sperry*	830	
6		By the Shores of Silver Lake *by Laura Ingalls Wilder*	820	
	800L			
		And Now Miguel *by Joseph Krumgold*	780	**Pacific Crossing** Mr. Ono was in the garden, playing a round of backyard golf. The golf club was rusty, and his single golf ball was chipped and yellow as an old tooth. "I'm on vacation. I can't worry about money," he said, concentrating on his putt and the dent in the earth twenty feet away. He swung the club, and the ball raced like a mouse under a cabbage leaf. He looked at the boys and said, "I need practice. Give me a couple of hours, and you'll see."
		Red Scarf Girl: A Memoir of the Cultural Revolution *by Ji-Li Jiang*	780	
		Harriet the Spy *by Louise Fitzhugh*	760	
		Pacific Crossing *by Gary Soto*	750	
5		From the Mixed Up Files of Mrs. Basil E. Frankweiler *by E.L. Konigsburg*	700	
	700L			
		Charlotte's Web *by E. B. White*	680	**. . . If You Sailed on the Mayflower in 1620** Plants called herbs were the medicine of the Pilgrims. When spring came, the women planted herbs in their gardens. Suppose you cut yourself. Your mother would make a medicine from the wild daisy. She would mix it with animal fat and smear it on your cut. Suppose you had a headache. Your mother would mix ground-up sage with fat and cornmeal. You would have to eat it, even if you hated the taste. Rose leaves and the fruit of the rose, called rose hips, were said to be good for almost anything.
		Henry Huggins *by Beverly Cleary*	670	
		Sadako and the Thousand Paper Cranes *by Eleanor Coerr*	630	
		Flossie and the Fox *by Patricia McKissack*	610	
4		. . . If You Sailed on the Mayflower in 1620 *by Ann McGovern*	600	
	600L			
		Buffalo Woman *by Paul Goble*	590	**Encyclopedia Brown, Boy Detective** In the morning he made up his mind. He would go into the detective business and help people. He wouldn't wait until he grew up. It was summer and school was out. He could begin at once. Encyclopedia got out of bed and searched through his closet. He dug out a toy printing press, a Christmas gift from his Uncle Ben two years ago. As soon as Encyclopedia finished breakfast, he printed fifty handbills. When the ink was dry, he put the handbills in all the mailboxes in the neighborhood.
		The True Story of the Three Little Pigs by A. Wolf *by Jon Scieszka*	570	
		Encyclopedia Brown, Boy Detective *by Donald J. Sobol*	560	
		Red Riding Hood *by James Marshall*	520	
3		The Magic School Bus Inside the Earth *by Joanna Cole*	500	
	500L			
		Madeline *by Ludwig Bemelmans*	480	**How My Parents Learned to Eat** One day, the captain of my father's ship said, "John, in three weeks the ship is leaving Japan." My father was sad. He wanted to marry my mother. How can I ask her to marry me? he thought. I don't even know if we like the same food. And if we don't, we'll go hungry. It's hard to be happy if you're hungry. I'll have to find out what food she likes. And I'll have to learn to eat with chopsticks. So he went to a Japanese restaurant.
		Dinosaur Bones *by Aliki*	460	
		How My Parents Learned to Eat *by Ina R. Friedman*	450	
		Henry and Mudge and the Forever Sea *by Cynthia Rylant*	420	
		Frog and Toad Are Friends *by Arnold Lobel*	400	
	400L			
		Babushka's Doll *by Patricia Polacco*	360	**The Best Way to Play** "My dad said there are too many toys these days," said Kiku. "So, what's wrong with toys?" I said. We sat around and felt sad together. Just then, Andrew came running toward us. "I got the game," he said. "Let's go to my house and play it!" "Let's go!" we shouted.
		The Best Way to Play *by Bill Cosby*	360	
		Arthur's Nose *by Marc Brown*	350	
		Noisy Nora *by Rosemary Wells*	320	
2		Pet Show! *by Ezra Jack Keats*	300	
	300L			
		Mr. Rabbit and the Lovely Present *by Charlotte Zolotow*	280	**Play Ball, Amelia Bedelia** "I know there is a uniform here," said Amelia Bedelia. And there was one. She took a nip here and a tuck there. Soon that uniform was just right.
		The Cat in the Hat *by Dr. Seuss*	260	
		Play Ball, Amelia Bedelia *by Peggy Parish*	220	
		Clifford, the Big Red Dog *by Norman Bridwell*	220	
1		Danny and the Dinosaur *by Syd Hoff*	200	
	200L			

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SCHOLASTIC

Appendix 12 Accelerated Reader

One way of linking readers to texts at the 'just-right' level is to use Accelerated Reader (AR), although this programme also has a range of other features. It is a web-based intervention, produced by Renaissance Learning Company. It is a whole-group programme for managing and monitoring reading, and it aims to foster the habit of independent reading among primary and younger secondary pupils. The software initially screens pupils and identifies their reading levels and then suggests books that match their reading level and interests. A system of computerised quizzes on the books is used to monitor and reward reading, by allocating 'points'. The main elements of Accelerated Reader are:

- Assessment of a student's reading level through the STAR (Standardized Test for the Assessment of Reading) test
- A system of levelling books using the ATOS reading formula (**A**dvantage **T**ASA **O**pen **S**tandards) which includes average sentence length, average word length, vocabulary grade level, and number of words in the book
- Assessing comprehension by means of a computer-based quiz that tests general knowledge in a multiple choice format of 3-20 questions
- Providing a range of reports for parents and teachers that detail student progress
- In this approach, text complexity is determined by the ATOS formula, which uses the text of an entire book to inform the calculation rather than just a sample, as with some other formulae.

(As an alternative to the ATOS formula, Lexile® measures are also available for books with Accelerated Reader quizzes). The Accelerated Reader programme has 30,000 books with ATOS levels and accompanying quizzes. Some of the applications of the programme are free - such as finding the ATOS level of a book or generating a personalised reading list based on a student's current reading level, his or her interests and chronological age.

See details of Accelerated Reader research in Section 5

Appendix 13 Support Services for Teachers

PDST (Professional Development Service for Teachers) Click here.

The PDST is the country's largest single support service offering professional learning opportunities to teachers and school leaders. The PDST offers a generic, integrated and cross-sectoral support service for schools, through a range of CPD models.

The PDST organises supports for primary and post-primary schools separately. They offer a range of inputs and conferences in relation to literacy, including support for both English and Irish, the Primary Language Curriculum, Reading Recovery, Team Teaching, English as an Additional Language, the Well Read National Award, Literacy Link Teaching and Literacy across the Curriculum (post-primary).

NCSE Support Service (National Council for Special Education Support Service) Click here.

The NCSE Support Services is an amalgamation of three support services which joined with the services already being provided by NCSE to form a new NCSE Support Service. This new service provides Continual Professional Development (CPD) and support for teachers in the area of special educational needs (SEN) (formerly provided through the SESS).

The NCSE Support Service offers a range of school-based seminars (by application) as well as a wide menu of seminars that are primarily delivered through the Education Centres. Their courses cover areas such as dyslexia, the uses of assistive technology, teaching of deaf children and digital literacy, as well as broader courses about topics such as inclusion and assessment. There are also a variety of on-line supports and resources.

Education Centres (Association of Teacher Education Centres of Ireland, ATECI) Click here.

The principal activity of Education Centres (originally Teachers' Centres) is to organise the local delivery of national programmes of teacher professional development on behalf of the Department of Education and Skills. Centres also organise a varied local programme of activities for teachers, school management and parents in response to demand. Education Centres often host courses run by the PDST and by NEPS and they also offer further local opportunities for training and professional development, including, for example, teacher induction and opportunities to participate in Teacher Support Groups.

NEPS (National Educational Psychological Service) Click here.

NEPS offer professional development and training programmes that are typically based on their research and NEPS-developed publications. These include inputs to national conferences, such as ILSA, inputs to clusters of schools (often through the Education Centre network) and action research projects. NEPS psychologists are also available to support schools and teachers on a local basis and in this way can be responsive to particular needs. Local and national events are planned on an on-going basis. Additionally, NEPS produce a range of on-line resources and handouts to support teachers (see the *Resources and Publications* section).

JCT (Junior Cycle for Teachers) Click here.

Junior Cycle for Teachers (JCT) is a dedicated continuing professional development (CPD) support service of the Department of Education and Skills. Their aim is to support schools in their implementation of the new Framework for Junior Cycle (2015) through the provision of appropriate high quality CPD for school leaders and teachers, and the provision of effective

teaching and learning resources. As well as offering courses, the JCT offers a wide range of resources which are free to download.

NIPT (National Induction Programme for Teachers) Click here.

The NIPT, in collaboration with the Education Centre Network (ATECI), facilitates a Workshop Programme for newly qualified primary and post-primary teachers (NQTs). The Workshop Programme consists of a series of 13 primary and 12 post-primary workshops, facilitated by experienced teachers who have received training from NIPT. The package of workshops varies from time to time and typically includes broad based workshops of interest across the curriculum (such as Classroom Management or Assessment) and more specific workshops targeting literacy.

Assessment: Analysing Classroom Evidence *NIPTWS06*: The aim of this workshop is to build on prior knowledge in relation to assessment methodologies. Resources from www.ncca.ie including Assessment in the Primary School Curriculum: Guidelines for Schools, The Aistear Toolkit and ACTION website are key references for the workshop.	**Literacy: Teaching and Managing a Reading Lesson** *NIPTWS08*: This workshop will focus on the planning, organisation and teaching of a reading lesson, using a range of texts. A key component of the workshop will be exploring the use of a variety of reading procedures, skills and comprehension strategies.

The NIPT also offers on-line courses, webinars and supporting resources.

Appendix 14 Purposes of Assessment

To identify those 'weakest' relative to a group

Such tests compare individual children with norms of a whole group. They can be used to identify those most in need of support, or of further assessment or special intervention.

To identify those who are underachieving

This is typically done by comparing attainments or achievement in different areas. For example, comparing the strong verbal skills of a student, to relatively weak written skills, suggesting a literacy difficulty. Sometimes cognitive/ intellectual ability scores are compared to literacy scores.

To identify specific areas of weakness

These are usually in-depth, individually administered diagnostic tests, which are analytical and provide information for interventions. For example, looking at phonic knowledge, to find out which sounds the child knows.

To identify the next teaching/ learning steps

These type of tests are usually criteria referenced and focus on a hierarchy of skills, with the purpose of identifying what tasks an individual child can or cannot complete (this is also known as assessment ***for*** learning).

To chart individual progress over time

In these cases usually the same test or a different version of the test is administered after a set time period, in order to document the rate of progress. Tests with parallel versions are particularly helpful.

To use as data for a research project

Any kind of test can be used, but standardised tests will produce the most robust data. The type of data collected is dependent on the design of the research project. The data may be collected for named individuals or for large samples of a particular population.

To secure resources and meet formal criteria

In these cases the nature of the difficulty is usually already known, but formal requirements need to be met, such as for DARE (Disability Access Route to Education) or RACE (Reasonable Accommodations in Certificate Examinations) or for the allocation of assistive technology supports.

Appendix 15 Understanding Tests and Test Results

15.1 Standardised tests

These are tests that have been standardised on a specific population, for example, Irish primary school children. Many standardised tests, such as the Schonell spelling test or the WIAT (Wechsler Individual Attainment Test) are not standardised on an Irish population and testers are relying on the data generated by British norms. There are very particular difficulties associated with children whose home culture is markedly different from the group on whom the test was standardised. This is a difficulty in assessing children from the Traveller Community and children who are newly arrived from cultures outside of the western world. Tests can become 'out of date' if they are not standardised within a certain number of years.

15.2 Normative tests

Norms are values given for what is expected in the 'normal' population. Normative tests will have been standardised and the results given are usually in Quotients or Standard Scores. Most tests adjust the data so that a standard score of 100 is perfectly average. The point is that a child will be compared to children of the same age or the same class group.

15.3 Criteria referenced tests

These tests tend to be more detailed and need careful scrutiny by the examiner. Such tests are designed to check knowledge and skills against certain criteria. The Junior Certificate and Leaving Certificate examinations are criteria referenced tests. Such tests can be used to find out how much a student knows about a certain topic, and to inform future teaching. Most classroom tests such as weekly spelling tests or end of term topic tests are criteria referenced tests. Again, such tests can feed into assessment for learning.

15.4 Diagnostic tests

These are usually in-depth tests which aim to identify underlying difficulties or identify a specific area of difficulty. The Dyslexia Screening Test is one such test. These tests are typically individually administered and can therefore be relatively time-consuming.

15.5 Reporting Standard Scores, Percentiles, Stanines and Age Equivalents

Results can be reported as standard scores, percentiles, age equivalents, grade equivalents, percentages or raw scores. Tests start with **raw scores.** That is the number of correct items on a test. A raw score is usually quite meaningless to others, as it says nothing about how well the child did on the test overall, or how the child compares with others. The raw score is usually converted into a standard score and/ or a percentile or a **STen or Stanine score**. The STen (standard ten) divides a score scale into ten units. The average result lies on the border of the 5th and 6th STens (the mid-point). Stanines are very similar, but are based on standard nine and the division of scores into a scale of nine, with the average result in the middle of the 5th stanine.

NCCA Guidance on Understanding STen Scores

INFORMATION FOR PARENTS **STen SCORE**

What do my child's test scores mean?

The teacher used **STen scores** to tell you how your child did in the tests. STen scores go from 1 to 10. The table below describes what the different STen scores tell you about your child's achievement in the tests.

STen score	What does the STen score mean?	Proportion of children with this score
8 - 10	Well above average	1/6 or almost 17%
7	High average	1/6 or almost 17%
5 - 6	Average	1/3 or almost 34%
4	Low average	1/6 or almost 17%
1 - 3	Well below average	1/6 or almost 17%

If your child's STen score is between 5 and 6 for example, you will know that his/her performance on the test is average. The table shows that about one in every three children in Ireland have STen scores in this range. You can also see that some children have STen scores above and below the average.

Scores for children with English as an additional language may not always reflect progress being made in class. Similar care is needed when interpreting scores for children with special educational needs.

INFORMATION FOR PARENTS STANDARD SCORE

What do my child's standardised test scores mean?

What do standardised tests measure?

When does my child complete standardised tests?

Do all children take standardised tests?

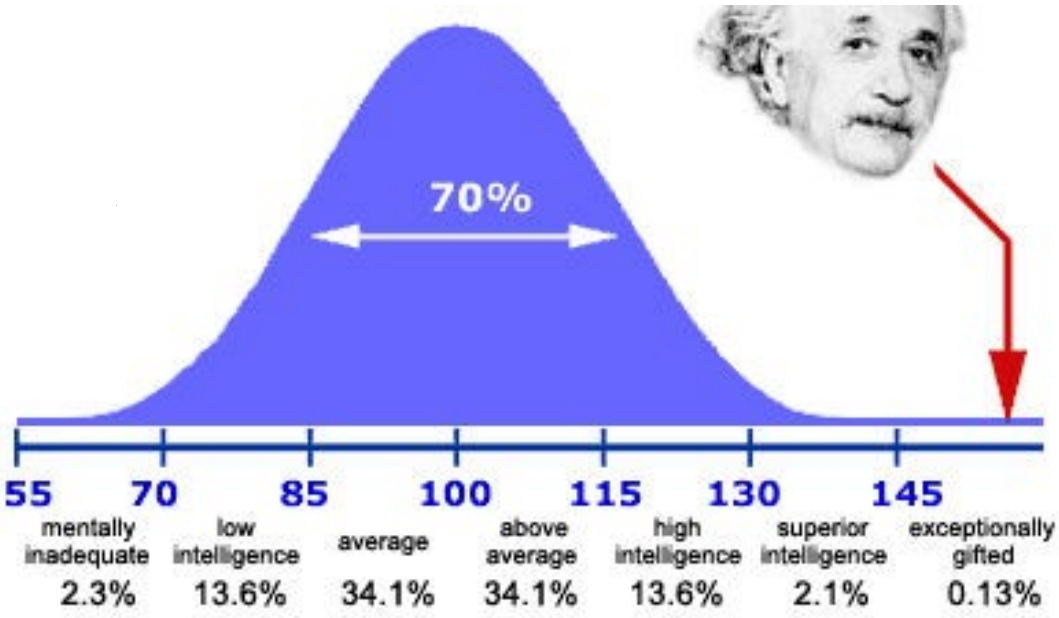
Are standardised tests the only way of gathering information about my child's learning?

More recently, the NCCA has put greater emphasis on standard scores (rather than STens) as a more nuanced way of reporting results to parents. The NCCA have developed a helpful leaflet to explain standardised tests scores to parents, and this can be download here.

Percentiles and standard scores are the most sensitive and the best scores to use to compare progress over time. A **standard score** is a score that compares the child to the 'norm' for his/her age and a score of 100 is perfectly average. A standard score is adjusted according to a person's age. A person with a standard score of 100 one year, who earns the same score the following year, is making the standard rate of progress- they are improving, as would be expected for their age.

A person whose standard score deteriorates, is losing ground relative to their typically developing peers and a person whose standard score improves over time, is gaining ground on their typically developing peers.

The normal distribution curve.



A **percentile** is how well the child did compared to 100 children of the same age. A percentile of 10 means the child did as well as or better than 10 children out of 100. Percentiles scores between the 25th and 74th percentiles are all considered to be within the average range.

Standard Deviations

Standard deviations are a way of quantifying how far a score is from the 'norm'. To be one standard deviation from the norm (in either direction) is to be considered significantly weaker or significantly more able than the norm. To be two standard deviations from the norm is to be considered very significantly more able (gifted) or less able (learning disability/ intellectual disability) as the scores are so far from the norm.

Age equivalents are problematic as they can be misleading. It is helpful to be aware that a person with a reading age of 10 years is functionally literate, and to achieve a reading age above 12 years, students need to be able to read very sophisticated words, such as *intrigue, blasphemy* and *euphemism.* Teachers should be cautious about reporting age equivalent scores to parents, who may focus on the fact that the young person is '*3 years behind in reading*' when the standard score can still actually fall within the average range. For example, it is quite possible for a 15 year old to score a standard score of 91 (within the average range, at the 27th percentile), but the age equivalent score for this age is 12 years and 3 months. This is why age equivalent scores can be unhelpful, particularly for older students. Equally, students can be a year or more 'behind' in reading and yet be achieving within their ability.

Appendix 16 Tests of Literacy Currently in Use

16.1 Tests of Reading

Group Tests

Micra-T Group Reading Tests – revised (2004)

These tests were standardised on the Irish population, in 2002-2003, with a total of 10,000 pupils. The tests have four levels, spanning first to sixth class and are published by CJ Fallon.

Drumcondra Primary Reading Test- revised (2006)

These tests cover both reading vocabulary and reading comprehension, with six levels corresponding to first to sixth class. They are available from the Educational Research Centre.

Drumcondra Post-Primary Test- English Reading Literacy (2013) and Drumcondra On-Line Tests (DOTS, 2016)

Suitable for use in the last term of 2nd year at post primary level. Digital and paper versions are available. The digital version, known as DOTS is a cloud-based, fully integrated, secure system for the delivery of standardised tests to Irish students. The reading elements of the Drumcondra tests assess reading vocabulary and reading comprehension. It was standardised on Irish students in 2013 (paper based version) and 2016 (computer based version). They are available from www.erc.ie/tests (paper version) and trythetests.erc.ie (digital version).

New Group Reading Test, 3rd Edition NGRT (2010)

This test has both digital and paper administration and can be administered to individuals or to groups. The age range for paper administration is 5-16 years (45- 50 minutes) while the digital form, is 7-16 years (30 minutes). It is made up of two parts: ***sentence completion***, which measures decoding with some elements of comprehension and ***passage comprehension*** which measures a range of comprehension skills. There are short phonics-based questions for the youngest children. The test uses UK Norms and is available from GL Assessment.

SPaRCS Test (2017)

This is a group administered test for students aged 13 to 18 years, which tests spelling, processing speed and reading comprehension speed. It is standardised on the Irish population. It may be particularly helpful in screening for RACE (Reasonable Accommodations for Certificate Examinations) applications, in which case individual administration is required.

Individual and Diagnostic Tests

The Wide Range Achievement Test, Fifth edition (WRAT 5, 2017) includes word reading, reading comprehension and spelling tests. It is suitable for the complete age range. This

individually administered test also includes a maths assessment. It uses American norms and may be over generous compared to Irish norms.

The **Diagnostic Reading Analysis 2nd Edition (2004)** published by Hodder covers the age range 7 to 16 years and is particularly suitable for testing less able students. It is individually administered and covers reading accuracy, comprehension, fluency/rate of reading. This test may be particularly helpful in considering RACE applications, where reading fluency is an issue. UK norms www.hoddereducation.co.uk

The Wechsler **Individual Achievement Test- for Teachers, Third Edition (WIAT III-T, 2018)** can be used across the age range 4-25 years and has both US and UK norms. It is an individual assessment which covers the following areas: early reading skills, word reading, reading comprehension, oral reading fluency and spelling.

York Assessment of Reading for Comprehension (YARC) 2010. There are three parts to the YARC. Early Reading covers the ages 4-7 years, Passage Reading Primary covers the ages 5 – 11 years and Passage Reading Secondary covers the ages 11-16 years. The Primary and Secondary aspects of the test assesses students reading fluency, accuracy and comprehension. There are parallel forms available. Available form GL- Assessment. It is useful test to help identify a student's particular difficulty with reading, whether it is a difficulty with decoding, reading rate or with comprehension.

Woodcock-Johnson IV, Tests of Achievement, Standard Test Book 2014. This test is available in 3 parallel versions, A, B and C. Each version includes a battery of 11 subtests of letter-word identification, spelling, passage comprehension, writing samples, spelling, work attack, writing fluency, oral reading, reading fluency, calculation, applied problems and maths fluency. It is suitable for the age range 4 to 94 years. It uses US norms and must be scored on-line. There is a new UK adapted version available in Ireland from early 2019.

New Salford Sentence Reading Test (2012). This test gives standardised scores as well as reading ages and includes an optional new measure of reading comprehension. There are three parallel forms. The age range is 5- 12. UK norms.

The **Balanced Literacy Framework Review/Checklist** (2015) (pages 77-84). This is most suitable for use with pupils aged 4 to 7 years, to help pinpoint particular difficulties, set appropriate targets and monitor progress. It is a tool for assessment for learning and not a standardised test. It is available here.

16.2 Tests of Spelling

A test of spelling skills can be very helpful in identifying those who may be at risk of dyslexia. Teachers should pay special attention to those students who appear to be significantly underperforming relative to their general level of ability. An alternative to a standardized spelling test is a Developmental Spelling Test/Inventory. This approach typically involves presenting spellings in a dictated sentence format. The students' spelling attempts are analyzed and then they are subsequently placed into developmental groups. This approach is synonymous with classrooms adopting the Word Study Approach.

Drumcondra Primary Spelling Test- (2003)

This is a set of Irish standardised tests, which measure spelling related skills: *Word spelling*, *sentence or story completion* and *error detection*. There are six levels to correspond with First through Sixth in primary school. The test was standardised on over 12,000 pupils nationally.

The following tests all include a spelling subtest. Details of each are noted above.

- **The Wide Range Achievement Tests* (WRAT 5, 2017**) - see above
- **Woodcock-Johnson IV*, Tests of Achievement, (WJIV, 2014) -** see above
- **Wechsler Individual Achievement Test Second Edition (WIAT III-T, 2018)** - see above
- The **Balanced Literacy Framework Review/Checklist** (2015) – see above

Vernon Graded Word Spelling Test, Third edition, **(2006)** (Ages 5:6 to 17:6). This test can be given to individuals or to groups. It measures spelling attainment and progress. It uses UK norms

Diagnostic Spelling Tests (DST): Primary and Secondary Manual (2006)

These tests can be administered to a group or individually. The tests are standardised (UK norms) and also give spelling ages. There are five tests available. Tests 1- 3 cover the age range of 5 to 12 years (Primary Manual). Test 3- 5 cover the age range of 9 years to 25 years+ (Secondary Manual). Parallel forms are available.

Words their Way: Word Study for Phonics, Vocabulary, and Spelling Instruction has spelling inventories for primary and post-primary levels. These spelling inventories are used to help group students by spelling developmental stage. They contain lists of words that were chosen to represent a variety of spelling features at increasing levels of difficulty. The words in the spelling inventories are designed to demonstrate students' knowledge of these key spelling features at the different stages of spelling development and thereby to inform the correct level of intervention. The assessment does not produce a standard score or age equivalent.

16.3 Other Tests of Literacy

Informal Dictation

It may be helpful to ask students to complete a short piece of dictation. This can yield useful information about a range of skills: rate of writing, handwriting legibility, listening skills and spelling skills. When standardised results are not available, an experienced teacher should be able to identify students with weak skills in key areas, who may need further diagnostic testing.

Miscue Analysis

Miscue analysis is a means to use a running record for diagnosis to identify students' specific difficulties. Not only is the running record a way to identify reading rate and reading accuracy, it also is a way to assess reading behaviours and identify reading behaviours that need support. It is an integral part of the Reading Recovery approach. The use of running records in a complete assessment is demonstrated **here.**

Samples of Written Work

Samples of written work yield information about spelling skills, the use of punctuation and grammar, handwriting skills, rate of written work, vocabulary usage and expressive written language. Scoring of samples is relatively complex, and it is hard to find a good standardised test. However, really useful qualitative data can be collected.

There is also the **Detailed Assessment of Speed of Handwriting Test (DASH 2007, Harcourt Assessment)** which can be group administered and is standardised from ages 9 to 16 years, 11 months. It takes 30 minutes and involves five short subtests, including a 10 minute free writing activity. Produced by The Association of Occupational Therapists of Ireland (AOTI), Suite 2.20 Smithfield Business Centre, The Distiller's Building, Smithfield, Dublin 7 01 8748136

The Hedderly Sentence Completion Test can be downloaded for free. Google 'Hedderly Sentence Completion' and open the pdf file in www.dyslexiaaction.com which contains the test itself, as well as instructions for scoring.

**Some of these tests require a specially trained administrator and have restricted access for teachers, depending on the qualifications of the teacher administering and scoring them. Your educational supplier can advise further*.

Appendix 17 Making Sense of Research Data

17.1 What are ratio gains?

A ratio gain is the amount of progress a student makes in reading age, divided by the time spent between pre and post intervention. Calculating ratio gains therefore involves using a test that gives age equivalent scores. If a student makes one year's progress in word reading over the course of one year, then the ratio gain is 12 months (progress) divided by 12 months (time spent) giving a ratio gain of 1.

How much progress?

Brooks (2016) suggests that we should be aiming for students to make ratio gains of 2. In effect, Brooks argues, ***'Good impact - sufficient to at least double the standard rate of progress - can be achieved and it is reasonable to expect it'*. (p16).**

Ratio gains of more than 2 are now set as the standard to which to aspire, as '*many schemes now produce impacts of this order or more*' (Brooks, 2007, p30). This would imply that we should be aiming for our struggling readers to make two years progress in one year. It is helpful to be aware that it is relatively easy to achieve strong ratio gains over a short period of time. For example, a ratio gain of 2 over a 3 month period, is 6 months progress in 3 months. This is easier to achieve than it is to achieve the same ratio gains over a longer period of time (a ratio gain of 2 over the course of a year is two years progress in one year).

17.2 Effect Sizes

Another way of measuring progress sometimes used by researchers, is to report on effect sizes. The size of the difference between literacy skills at the start of an intervention and at the end of an intervention, or years later, can be calculated in this way. The 'effect size' is calculated between two standardised scores (where the mean is usually 100 and the standard deviation 15). By measuring the difference between two scores and dividing by the standard deviation, researchers can calculate statistically robust measures of success (or otherwise). Most researchers use a *Cohen's d* measure and in broad terms an intervention is successful (statically significant) if the effect size is greater than or equal to 0.2. An effect size of 0.2 is considered, small, an effect size of 0.5 is medium and an effect size of 0.8 or more is large. Bear in mind, that even a small effect size shows that the intervention is having an impact.

17.3 What is Possible? - Reaching all Students

Research shows that virtually all children can be reached by effective literacy practices. MacKay (2007) in reporting on the ten year project in West Dunbartonshire, aimed to achieve, '*the eradication of illiteracy from an entire education authority.'* MacKay's project, in the second most disadvantaged authority in Scotland, involved some 60,000 students. This multi-strand literacy initiative addressed not just the effective teaching of reading in the ordinary classroom,

but the effective support of struggling readers. At the end of the 10 year project, '*only three pupils remained with Neale Analysis scores below the 9y 6m level of functional literacy'* (p31).

The attainment of students in Irish primary schools with disadvantaged status has increased between 2007 and 2016. The most recent study (Kavanagh, Weir and Moran, 2017) reports that the proportion of students achieving at or below the 10th percentile in reading in DEIS schools has shifted from 25% in 2007 to 14% in 2016. School principals indicated that they attributed the gains in reading skills firstly to the introduction of specialised literacy programmes and secondly to target setting and progress monitoring.

Indeed, the delivery of evidence-based interventions has been found to be effective, even with groups who traditionally have struggled to attain literacy. For example, Nugent (2010) found that children from the Travelling Community made over a year's progress in reading skills over a three month intervention period, while Kennedy (2010) found students in schools with disadvantaged status made very significant progress when their teachers engaged in focused professional development.

Solity (2000) argues that '*the single most significant change needed to create a climate for success requires that all those working in the education system assume that all children can learn and reach age –appropriate targets when given the right teaching'*, (p56). This raising of teacher expectation is an important feature of raising achievement, (Eivers et al., 2004). Therefore, teachers need to be aware of their role in having high expectations for struggling readers and communicating those expectations to the students.

17.4 Making Sense of the Research Data

In the following section, a range of data will be presented and our task is to be able to appreciate the significance of the data and so that we can make valid comparisons between interventions. Different studies deploy different reporting methods and it can be difficult to discern the relative value of scores. It may be helpful to review the information in Section 3.6. Briefly, a ratio gain of one or more indicates progress- a closing of the gap between the struggling reader and his/ her typically developing peers. However, the expectation for effective teaching is now a ratio gain of 2 (twice the 'normal' rate of progress.

Effect sizes, once above 0, represent gains, but the convention is to expect an effect size of 0.2 or more. An effect size of 0.5 is a medium effect and an effect size of 0.8 is a large effect. The language of statistical analysis is perhaps rather cautious and circumspect. A small effect size does not sound very impressive, but in relation to reading progress, a student who earns a small effect (for example, of 0.3) is possibly making gains of one year in reading ability, over a 3 month time span. Most teachers would recognise this as excellent progress. So when reviewing the data here, and indeed any research literature, bear in mind that a small effect size is actually very impressive!

Equally, a student who earns a standard score of 100 in September 2016 and a standard score of 100 in the following year, has made one year's progress in one year, so that no gains in standard scores, still indicate steady progress (although not enough progress to 'catch-up' and close the gap between a struggling reader and typically developing peers). In fact, standard scores can decrease, and yet the student is still making progress. For example, a 7 year old could earn a standard score of 91 at Pre-intervention (representing a Reading Age equivalent of 6:6). Six months later, as post-intervention, the standard score could be 89, (representing a Reading Age Equivalent of 6:9). Although the standard score has decreased, the student is still making some progress (although not enough to either 'keep-up' or to 'catch-up'.) Ratio gains should never show a decrease (that would mean the student is going backward) but any positive value, even one of 0.1, will still represent progress. So a student may not make a year's progress in one year, but only 6 months progress, (a ratio gain of 0.5).

Effect sizes are sometimes calculated on the difference between the experimental group and the control group. If the control group makes very poor progress, the experimental group will look better in comparison. In the data presented in Section 5, effect sizes have been calculated by the NEPS authors, who analysed data submitted by various contributors. All effect sizes reported were calculated on the basis of the standardisation sample (and not on the basis of any control group). This means, whether or not the original study had a control group, the effect sizes are all based on comparing the results of the 'experimental' group with the standards and progress of the standardisation sample. This creates a relatively even playing field and makes comparison between different interventions easier.

We need to be aware that progress for some students is unlikely to compare well to a normal standardisation population. For example, children with a moderate general learning difficulty and some children with significant hearing loss may not make reading progress at the same rate as their typically developing peers. In cases of data being collected about such particular groups, a very low ratio gain or low effect size, may not be immediately relevant and it is not appropriate to dismiss an intervention as ineffective on this basis.

The following table is a 'rough guide' to understanding the data that will presented in the next section. As noted previously, ratio gains can be slippery: a large ratio gain is relatively easy to achieve over a short period of intervention, but much harder to achieve over a longer period of intervention. For this reason, there are two rows representing ratio gains: the first for interventions of less than 6 months duration and the second for interventions of 6 months or longer duration. The cut-off between the two time spans is relatively arbitrary, but gives a general guide to the differences.

Table 1

Measure Used	Some progress being made	Modest progress	Very Good Progress	Excellent Progress	Outstanding Progress
Ratio gains (for interventions less than 6 months)	Ratio gains of 0.1 or more	Ratio gain of 1 or more	Ratio gain of 3 or more	Ratio gain of 4 or more	Ratio gain of 6 or more
Ratio gains (for interventions more than 6 months)	Ratio gains can be of 0.1 or more	Ratio gain of 1 or more	Ratio gain of 1.5 or more	Ratio gain of 2 or more	Ratio gain of 3 or more
Effect Size Cohen's d (when standardisation sample is the control group, SD is 15)	Effect size can be below 0	Effect size of 0.1 or more	Effect size of 0.2 or more	Effect size of 0.5 or more	Effect size of 0.8 or more
Standard score gains	Standard score gains can be below 0 and even decrease	Standard score gains between 0 and 2 points	Standard score gains between 3 and 7 points	Standard score gains between 8 and 11 points	Standard score gains of 12 points or more

17.5 Research design and data limitations

There are a range of ways of measuring progress and of evaluation interventions. The gold standard is an experimental design that involves a randomly allocated control group, with very rigorous pre and post data collection and interventions delivered in highly controlled environments. However, as Robson & McCarten (2016) point out, the 'real world' of action research is a rather messy business. Sometimes it is not possible to separate out confounding influences or other factors, such as support at home. For example, a student may be receiving a Precision Teaching intervention for 10 minutes per day, over 10 weeks and pre and post test data may suggest that this student made excellent progress in word reading. However, we cannot be sure that the progress made can be attributed to Precision Teaching. It may be that the student has discovered an author s/he likes and is reading a great deal more. What helps us be more certain about the causal link between the progress made and the intervention, is the sample size. If 50 students did a Precision Teaching programme for 10 minutes per day, over 10 weeks and they all made significant gains in word reading, that would be far more persuasive.

Much of the research reported in this resource was delivered by special education teachers in the learning support context. It is inevitable that other literacy supports and stimulation are being delivered through multiple sources: the mainstream classroom, in the home and even in the student's use of social media. This is perhaps most true of interventions delivered to

students attending special reading schools or reading classes. For these students, their whole learning environment is adapted to address their literacy difficulties, and so we need to be cautious about assigning a causal link between one element of their programme (a particular literacy intervention) and overall literacy outcomes. In the absence of absolute experimental conditions, we need to also take account of the voice of the experienced teacher. What explanation does the teacher give for the progress recorded. Is the explanation plausible? Is it reasonably convincing? For example, if a teacher with 10 years' experience of teaching in a special reading school reports that a named intervention is the key feature in the progress being seen, that is reasonably persuasive. When such persuasive data can be collected from a number of sources, that data becomes quite convincing.

It is also difficult to control the extent teachers follow programmes with fidelity, and not all research design has methods for checking programme fidelity. This means that what one teacher is doing under the guise of teaching reading comprehension skills using Reciprocal Teaching, may be quite different from what another teacher is doing. Broadly, the more directive and structured the programme, the more likely that teachers will deliver it in a similar fashion.

Appendix 18 Data from Action Research Projects 2006-2019

1. Waterford Projects, 2006-2010

1.1 The Background to the Research

This section summarises findings from 4 years of action research projects in Waterford. Each project involved learning support teachers delivering an evidence-based intervention over 3 months and collecting pre and post-intervention data. Similar projects were carried out in Navan and Galway, with equal success, but the data presented here is based on the Waterford studies.

In the Waterford Reading Projects, the NEPS team presented up-to-date research evidence about named intervention programmes or approaches, so that teachers had an evidence-based menu from which they could select a programme. Ultimately five interventions were chosen by the majority (87%) of teachers:

- **Acceleread / Accelewrite (Clifford and Miles, 1994)**
- **Peer Reading (see Topping (2000) for a discussion)**
- **Toe by Toe (Cowling and Cowling, 1993)**
- **SNIP - a precision teaching package, (see Binder & Watkins (1990), Smart & Smart)**
- **ARROW (ARROW, 2008).**

See **Section 5** for details of these interventions. Other interventions were either not selected (often due to a lack of available training) or selected by small numbers (and therefore did not provide adequate data for comparison purposes).

1.2 Who took part in the projects?

Over the three years, 46 teachers participated in the action research, and data was collected for 221 students. Of these, valid pre and post-intervention data was collected for 200 students in primary and post-primary schools, who followed the five most popular interventions. Students were in the age range 5 to 17 years. The mean age of participants at the start of intervention was 12 years. There were 126 boys and 63 girls participating, with 11 participants for whom gender was unspecified. At pre-intervention, students had average word reading scores, at approximately the 13th percentile (standard score of 83).

Table 1: Number of Participants (students) in each Intervention

Intervention	Students
Acceleread/ Accelewrite	43
Peer reading	54
Toe by toe	33
SNIP	21
ARROW	49
Total	**200**

Data was collected for 200 students in the age range 5 to 17 years. These students followed one of five intervention programmes for a period of 3 months (average 12 weeks teaching), delivered by learning support/ resource teachers.

1.3 How much progress did they make?

As noted in Appendix 17, standard scores represent the most statistically correct way of measuring progress, and therefore the data collected during the reading projects was in the form of standard scores. These in turn have been converted to ratio gains and age equivalents, in order to further illustrate the rates of progress made by participants. It was found that over the course of a 3 month intervention, the average participant made gains of 12 months in both word reading and in reading comprehension (See Table 2). This represents a ratio gain of 4.

Table 2: Progress over 3 months of instruction, pre-post- intervention age equivalent scores

Test	N	Pre-intervention	Post-intervention
Word Reading	200	8 years, 3 months	9 years, 3 months
Comprehension	188	8 years, 9 months	9 years, 9 months

It should be noted that it was not possible to gather longitudinal data, so it is unclear whether this progress was sustained over time. Qualitative data did indicate that students had developed a more positive attitude to reading.

The average participant made a year's progress in word reading and a year's progress in reading comprehension over the period of the intervention (12 weeks of tuition).

1.4 Were some interventions better than others?

Teachers will want to know if any of the five interventions was significantly better than the others. One way of considering this is to look at standard score gains graphically.

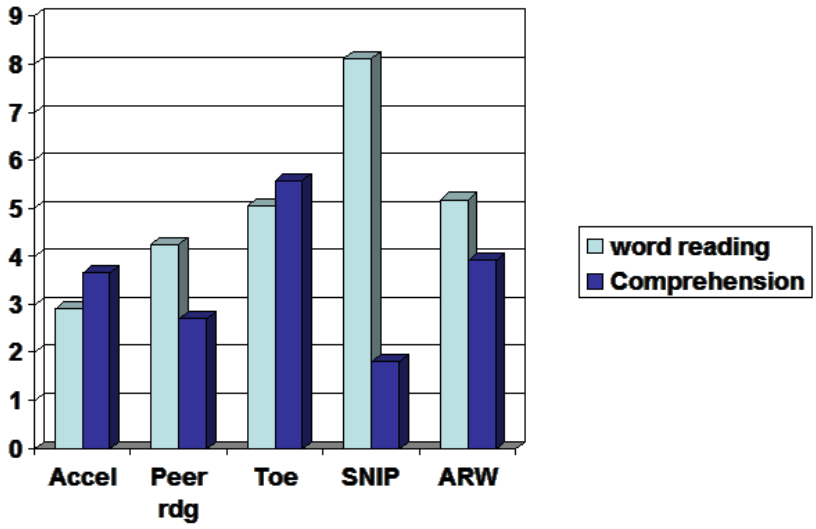


Figure 1: Comparison of interventions, SS gains in word reading & comprehension

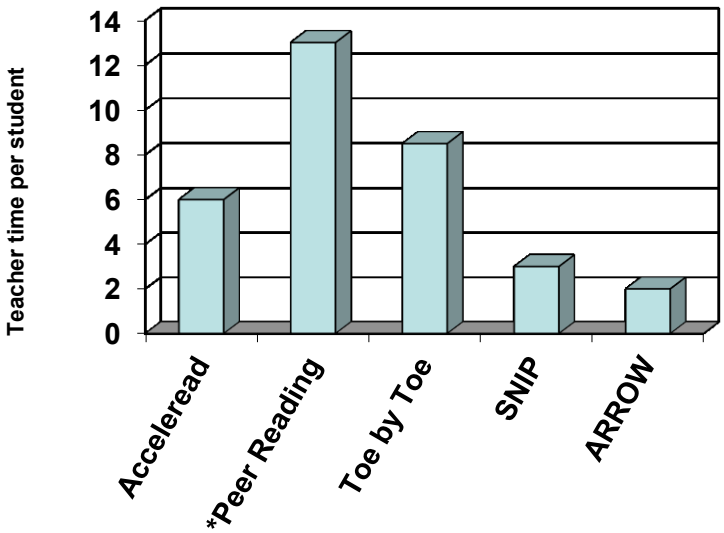
What the above data is telling us is complex: It is not the case that any one intervention can be declared the most effective. It appears that SNIP can be a highly effective intervention in the area of word reading, but is less effective in the area of comprehension. This is perhaps not surprising, as this intervention is solely based on word reading tasks. Toe by Toe was impressive, in that it appeared to address both word reading and reading comprehension equally effectively.

No one intervention was clearly better than another. SNIP was best for teaching word reading, while Toe by Toe gave the best overall results, BUT, all of these interventions provided significant gains, which met Brook's (2007) standard of 'twice the usual rate of progress'.

1.5 Teaching Time and Learning Time

An important consideration in calculating the efficacy of any intervention programme is to look at the amount of time given by students to learning and the amount of teacher time required to deliver the programme. The teacher time spent per student is shown in Figure 2. The calculation is based on hours of teaching, divided by the number of students in the group.

Figure 2: Graph comparing the amount of teacher time spent per student, for each intervention



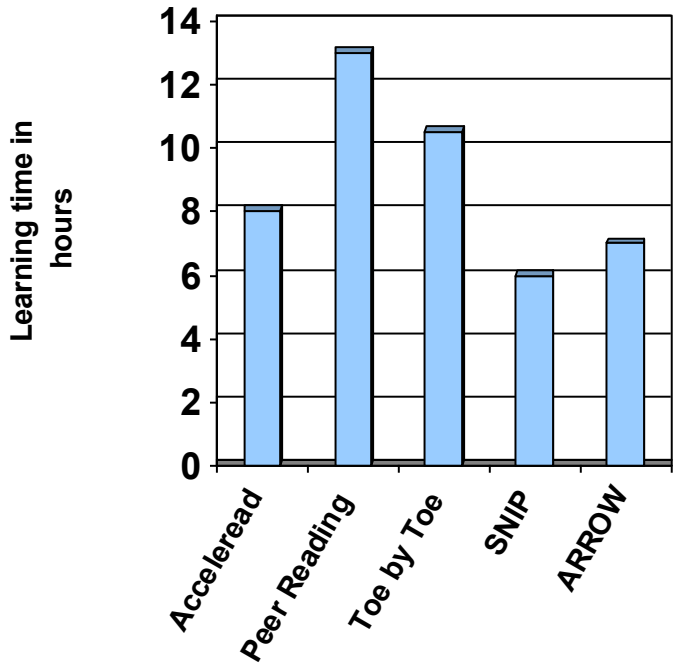
**Note, teacher time for Paired Reading could not be calculated*

We can see that ARROW and SNIP give good value in terms of teacher time. The average amount of teacher time used, per student, was 2 hours for ARROW and 3 hours for SNIP. One of the particular advantages of the ARROW programme is that it can be effectively delivered to groups- typically 5 students at a time. The SNIP programme was delivered in both a larger group setting (7 students) and individually, for very short periods of time (10 minutes) making this a very time efficient intervention for both students and teachers.

SNIP and ARROW offer particularly good value in terms of the efficient use of teacher time. Peer reading is also known to be cost-effective in terms of teacher time.

Let us now look at the time students spent learning. As Figure 3 shows, students in Acceleread/ Accelewrite, SNIP and ARROW spent broadly comparable amounts of time learning (between 6 and 8 hours), although those participating in peer reading spent significantly longer (13 hours).

Figure 3: Graph comparing the amount of learning time spent, per student, for each intervention



1.6 Want to know more about these interventions?

Section 5 includes a brief summary of each intervention, with video clips of the intervention in action. Information about the evidence basis is also presented. Much of the data reported is drawn from Brooks, (2016) *What Works for Pupils with Literacy Difficulties.* This is supplemented with more recent (and sometimes as yet unpublished) research in Britain and Ireland.

2. Kilkenny and Wexford Projects, 2018-2019

2.1 Analysis of 2018 and 2019 Action Research Reading Projects

Introduction

The aim of these projects was to promote evidence based practice in the teaching of reading to primary aged children and thereby to raise their levels of achievement. Three separate projects were carried out in Kilkenny in 2018 and 2019 and in Wexford in 2019. This report collates the data from all three projects.

The projects involved 61 teachers in 42 primary and special schools. Child participants (N=299) were in the age range 5.5 to 18 years (a small number of young people in a special school setting counted for these older students). The average age of participants was 9 years, 7 months. There was an even mix between boys and girls.

2.2 Methodology

The project involved the following elements:

- Presentation by NEPS about a range of evidence-based literacy interventions in the local Education Centre. This was followed by an invitation to participate in the Action Research Phase of the Project
- Preparation for Participation. Meeting in local Education Centre. Week designated for schools collect pre-intervention baseline literacy data from all participants
- Implementation of a range of evidence based interventions over a period of 3 months (approximately 12 teaching weeks)
- Mid-Project Review in Education Centre
- Completion by teachers of logs to monitor attendance, duration of teaching and learning
- Completion by teachers of qualitative questionnaires, mid-intervention and post-intervention
- Collection of post intervention data in designated week
- Final meeting of Project Group- preliminary Analysis of Data and Sharing of learning, in local Education Centre
- One additional element was the use of positive declarations by teachers. This approach aims to raise achievement by involving children in making bold, positive statements about their reading, such as, *'I will be able to read this book'* etc..

Data were collected about the gains children made in reading using the WRAT Tests including word reading, sentence comprehension and spelling scores. Mean pre-intervention standard scores were 86 in word reading, 87 in comprehension and 86 in spelling, indicating a generally low average level of attainment.

Table 1. Pre-and Post- Intervention Standard Scores, with all participants and by intervention

	Gains in Word Reading Scores		Gains in Compreh. Scores		Gains in Spelling Scores	
All Participants N=299	86	91.5	87.2	93.4	85.8	89.7
Paired Reading N=67	82.2	87.1	82.2	88	82.8	83.4
Mixed Methods* N=49	86	92.3	83.3	96.3	86.7	91.3
SNIP N=43	85	90.3	89.9	93.9	84.4	89
Acceleread/ Accelewrite N=22	86.1	92.2	84.1	88.9	87.3	89.2
Reading Rockets** N=17	105	117.2	104.5	108.5	105.3	102.6
Reciprocal Reading N=7	89.8	89.8	83.8	87.3	91.8	95
SRA N=15	96.7	106.9	95.5	100.9	95.1	101.9
Guided Reading N=14	94.4	98.4	95.5	108.4	96.6	99.8
Wilson N=13	78.8	82.8	79.8	87.8	79.7	83
Accelerated Reader N=13	83.9	89.9	88.5	97.3	85.9	88.3
Toe by Toe N=10	88	91.7	92.8	97.5	85.6	93.8
Reading Recovery N=6	82	86.2	82.5	82.5	79.8	99.7
Words their Way N=5	85.2	89.4	86	97.6	84.4	87.2
Newell Literacy N=4	64.5	76	ND	ND	69.5	85.7
Literacy Lift Off N=4	101	106.7	108.5	117.3	100	108.3
Word Wasps N=3	87.3	94	78.6	83	86	87.3
Other/ Miscellaneous N=7	78.6	81.7	76.7	82.3	76.7	82.9

*Note: Mixed methods included combined interventions, which include at least one of those listed above (for example, Guided Reading with SNIP or Peer Reading with Precision teaching.
** Reading Rockets is a form of reciprocal teaching, but is reported separately here as it was delivered to a whole class group

2.3 Results

The average number of sessions of intervention was 31, but there was a range of 10 to 68 sessions. Typically, teaching sessions lasted 26 minutes (range 10 to 55 minutes). The size of the teaching group (discounting the one whole class intervention) varied from one to one, to 18 students (for peer reading). While the average group size was 7, 25% of all participants were taught in a 1:1 context, at least some of the time, and indeed, if peer reading is considered a 1:1 intervention, that number grows to 47% of participating students receiving one to one instruction.

The average participant received just over 12 hours of literacy tuition. The average teacher time spent teaching per student, was 4.9 hours (the teaching time divided by the number of children in the group).

Children made excellent progress in literacy, progressing between 3 and 4 times the typical rate of progress and thereby closing the gap between weaker readers and their more able peers. In a period of three months of intervention the average participant made 11 months progress in word reading and 11 months progress in reading comprehension and 5.5 months progress in spelling. These gains compare very favourably with the best international standards and are a credit to the schools, teachers and students involved.

As Table 2 shows, the participants in this project made impressive gains in all aspects of literacy, and their average post-intervention standard scores brought their literacy skills within the average range. Means gains in standard scores were as follows: 5.5 in word reading, 6.2 in comprehension and 3.9 in spelling.

Table 2. Comparison or Gains in Standard Scores for Word reading, Comprehension and Spelling across all Action Research Projects

	Gains in Word Reading Scores	**Gains in Compre hension Scores**	**Gains in Spelling Scores**
Kilkenny & Wexford Projects Combined N=299	**5.5**	**6.2**	**3.9**
Wexford Project N=83	**3.7**	**7.1**	**3.5**

Kilkenny Project 2 N=93	**6.5**	**6.5**	**5.5**
Kilkenny Project 1 N=123	**5.5**	**5.5**	**2**
Waterford Projects N=210 2006-2010	**5**	**4**	**NA**

One of the issues in reviewing this data, is the significant number of children receiving learning support in primary school, even though their standard scores in literacy are within the average range at pre-intervention, or within one standard deviation of average (standard scores of 86 or more). In the mainstream context only 55% of all participants had at least one pre-intervention standard score of 85 or below.

When we look at those with at least one standard score below 85 (the weaker readers at pre-intervention), there are a number of things of note. This is the cohort typically associated with learning support and the average pre-intervention scores tended to be at or below the 10th percentile. On average, they are a little younger that their more able peers (9 years, 4 months, rather than rather than 9 years, 9 months). Surprisingly, despite their relative difficulties, they actually made more progress that those who were more able at the outset, although this was by no means uniform, with those attending special schools have slightly slower rates of progress.

Table 3. Analysis of Data for all students with at least one pre-intervention standard score of below 85.

	Pre and Post Word Reading Standard Scores		**Pre and Post Comprehension Standard Scores**		**Pre and Post Spelling Standard Scores**	
All Participants N=169	**79.4**	**85.4**	**80.5**	**87.1**	**79.3**	**84.3**
Gains (in SS between pre & post intervention)	**6**		**6.6**		**5**	

2.4 Discussion

When reading data such as presented here, it is tempting to jump to conclusions- such as: *These tables show which interventions are best*. It is more complicated than that! To truly compare, we would have to be sure that:

- All the children were relatively equal at the outset (in terms of age, literacy ability, general ability etc AND
- That they were receiving the same amount of intervention in terms of time AND
- That they were in similar sized groups AND
- That the sample size is big enough to make generalisations (about 30 students in each group)

That is not to say that the data is not useful- it needs to be taken in the context of other research information and the strengths and limitations of the data need to be appreciated.

It is hoped that further iterations of this type of action research will allow us to gather more data and thereby build a more robust data set.

2.5 Qualitative Data

The main obstacles in implementing the interventions were:

- Time! (choir, sacrament preparation, sports, trips etc)
- Sustaining student motivation
- Logistics- absenteeism, space, access to books etc

- The positive findings from teachers were:
- Teachers were happy with interventions
- Outcomes for children, in terms of increased literacy scores were rewarding
- Increased confidence and fluency of children's reading was evident
- Children enjoyed participating
- Teachers liked the highly structured approach of the project
- Teachers generally liked using positive affirmations

- The key learning from the project were:
- Making time to prioritise interventions is hard
- The benefits of relatively short-term, intensive intervention are evident
- Frequent, short teaching sessions can be really effective
- SNIP is very easy to administer
- There is value in collecting pre and post data
- Using positive declarations can be a great motivator

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Glor na Mara National School, Tramore

Mid -West School for the Deaf, Limerick

Catherine McAuley Special Reading School, Dublin

Oliver Plunkett Special Reading School, Monkstown, Co Dublin

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