APPENDIX E

ASSESSING READING

This chapter describes assessment activities in reading that support the implementation of the *English Profiles*. First, links between the assessment of reading and reading development are outlined. Second, tools for assessing reading are described. Third, approaches to assessing specific aspects of reading such as emergent literacy, phonemic awareness, oral reading, meaning vocabulary, and reading comprehension are examined.

LINKING ASSESSMENT TO READING DEVELOPMENT

Individual differences in reading development can often be viewed in terms of the extent to which they represent deviations from normal development. The *English Profiles* provide a broad indication of normal (expected) development in reading, in that specific indicators are set out for each class level, and progression can be traced through the indicator sets from one class level to the next. Another vantage point from which to view reading development arises from stage models of reading acquisition. These models outline in considerable detail the phases that children generally pass through from the earliest stages of learning to read (the emergent literacy phase) to the 'reading to learn' stage that many pupils enter in the senior classes in primary school. One such model is presented here[1] to provide a framework with which the assessment of reading can be viewed. The main cues and skills associated with each phase in the model are given in Figure E-1.

Emergent/Pre-alphabetic Phase (up to 5 years)
During this phase, many children acquire the knowledge that is important for subsequent reading development. This includes an understanding of the conventions of print (for example, words consist of letters, text progresses from left to right), the purposes and functions of print, letter name knowledge, and phonemic awareness (an awareness of the sounds in spoken words). Some of this knowledge is acquired informally at home; some may be acquired as a result of structured learning experiences that are offered at school.

In addition to refining their emergent literacy skills, children in this stage acquire a knowledge of some sight words. However, early word reading may be based on forming arbitrary connections between selected aspects of

words and pronunciations or meanings. For example, a reader in this phase might recognise the word 'camel' by the two humps in the middle or the word 'dog' by the tail dangling at the end. Unlike later phases of sight word development, connections are not based on letter names or letter-sound relations, hence the term 'pre-alphabetic'.

Partial Alphabetic Phase (5-6 years)
In this phase, children begin to form alphabetic connections between some of the letters in written words and the sounds detected in their pronunciation. The initial and final sounds are often selected as the cues to be remembered. A child in this phase might substitute a word with another word that begins with the same letter, such as *bird* for *bear*. In order to use initial and final letter cues effectively, partial alphabetic readers need to be able to segment the initial and final sounds in spoken words and know the sounds represented by initial and final letters.

Full Alphabetic Phase (6-7 years)
Beginning readers remember how to read sight words by 'forming complete connections between letters seen in written forms of words and phonemes detected in pronunciations'.[2] Successful reading in this phase hinges on three skills: (i) ability to segment spoken words into their phonemes; (ii) knowledge of letter-sound correspondences; and (iii) ability to blend sounds to form words. Initially, word identification may involve vocalising each sound sequentially before blending. With practice, readers can execute the process rapidly and automatically by applying hierarchical decoding rules (i.e., rules which govern the pronunciation of several letters in a word). Fluency begins to develop through daily independent reading of texts that are at an appropriate level of difficulty.

Consolidated Alphabetic Phase (7-8 years)
 Children who have encountered many different words in their reading begin to consolidate connections between letter patterns that recur across different words. Repeated encounters with a letter sequence that symbolises the same sound(s) across different words can yield a consolidated unit. Consolidation allows readers to operate with multi-letter units that may be morphemes (e.g., -ing), syllables, or syllabic units such as onsets and rimes. At this stage 'children's sight vocabularies grow large enough to support the consolidation of frequently occurring letter patterns into units'.[3] During this phase, children grow in their ability to recognise words automatically, without having to think consciously about word structure or spelling patterns. One authority[4] labelled this stage as 'confirmation, fluency and ungluing' and emphasised the importance of providing children with a range of different text types on which to apply new skills.

Figure E-1   Phases of Reading Development and Associated Cues

Phase/Age Range	Dominant Cues	Associated Skills
Emergent/Pre-alphabetic (Up to 5 years)	Salient visual cues in letters	Knowledge that print has meaning; awareness of words and syllables
Partial Alphabetic (5-6 years)	Some letter-sound correspondences (initial/final letter sounds)	Segmentation of initial/final sounds in spoken words; knowledge of initial/final letter sounds
Full Alphabetic (6-7 years)	Many letter-sound correspondences	Segmentation of all the sounds in spoken words; knowledge of most letter-sound correspondences; blending
Consolidated Alphabetic (7-8 years)	Multi-letter units (subsyllabic units, prefixes, suffixes, syllables)	Consolidation of multi-letter units (spelling patterns)
Reading to Learn (Ages 9-13)	Multi-letter units, vocabulary knowledge, text structure	Activating background knowledge; applying comprehension strategies; comprehension monitoring

Reading to Learn Phase (9-13 years)
This phase has been described as the one in which the emphasis on teaching basic reading skills decreases, and the focus shifts to helping pupils to acquire functional reading skills and strategies.[5] There is a shift from oral reading to silent reading, and a greater emphasis is placed on functional and recreational reading than on developmental (basic) reading. Comprehension skills and study strategies can be acquired through reading both narrative and informational texts, including texts in the areas of history, geography and science. Pupils develop strategies for activating background knowledge, identifying word meanings (vocabulary development), identifying the structure of narrative and informational texts, identifying important information (such as main ideas) in texts, and monitoring (assessing) their own comprehension so that they can take appropriate steps if comprehension breaks down. While many of these strategies can be introduced during earlier phases of learning to read, they should be emphasised and applied with greater consistency and in a broader range of texts at this stage.

TOOLS FOR ASSESSING READING

Unlike the area of oral language, where relatively few measures of achievement are available, teachers have access to a wide range of formal and informal measures of reading achievement. In addition to the reading element of the *English Profile*, these include standardised tests of reading achievement, diagnostic tests, checklists and portfolios.

Standardised Norm-Referenced Tests of Achievement

Standardised norm-referenced tests of reading include group- and individually-administered tests that cover such aspects of reading as phonemic awareness, word reading, sentence comprehension, reading vocabulary, and comprehension of longer texts. Derived scores, such as standard scores, percentile ranks or indeed reading ages, provide an overall indication of a pupil's achievement with reference to local or national norms. In general, standardised tests do not provide the detailed information about a pupil's reading that is needed to conduct an assessment using the *English Profiles*. For example, if a pupil achieves a low overall score on a standardised test of reading, it may be due to poor word identification skills, difficulties with phonological skills, difficulties with meaning vocabulary/background knowledge, poor reading comprehension skills, or some combination of these elements.

Diagnostic Tests

Diagnostic tests may be administered when more detailed information about a child's reading is required. Among the aspects of reading that are assessed by such tests are:

- visual/auditory discrimination
- concepts about print
- phonemic awareness
- recognition of rhyming words
- letter recognition
- knowledge of letter-sound correspondences
- word identification skills
- reading accuracy
- reading rate/fluency
- listening comprehension
- reading comprehension

Diagnostic tests are generally administered to individual pupils who experience or are likely to experience difficulty in learning to read. The outcomes of a diagnostic test point to a pupil's strengths and weaknesses in reading, and can be taken into account when planning a pupil's learning programme. However, caution should be exercised in moving directly from diagnostic assessment to instruction. A pupil may do poorly on an

aspect of reading (or memory) measured by a diagnostic test, yet there may be little evidence that the construct measured by the test is amenable to instruction, or that it is a priority area of instruction for a pupil. For example, poor performance on a diagnostic test of reading comprehension may be due to difficulties with word identification or poor vocabulary knowledge, and instruction in these areas might need to precede or be provided along with instruction in reading comprehension.

Informal Assessments

Finally, teachers can engage in informal assessment of a child's reading in a variety of instructional contexts. For example, careful observation of one or two individuals during a class activity designed to develop phonemic awareness, blending of letter sounds, or application of a reading comprehension strategy can provide valuable assessment information that can be drawn on in profiling the pupils' achievement at the end of the school year. Checklists (lists of skills that pupils at a particular stage of development might be expected to exhibit), rating scales, and anecdotal notes (short notes composed by the teacher) are useful tools for recording assessment information obtained informally. Checklists can be selected from among those that are commercially available, or can be constructed by teachers to reflect the particular emphasis in their school or classroom as they implement the curriculum.

One informal measure that can easily be applied by class teacher is the running record, a variation of a more detailed approach to analysing pupils' oral reading errors that is known as miscue analysis. Taking a running record of a pupil's oral reading involves counting the number of errors (if any) that are made in a text of given length to obtain a measure of reading accuracy (the percentage of words read correctly), and estimating the pupil's reading rate (measured in words read per minute). The nature of any reading errors that the child makes can provide insights into his/her word recognition strategies, while the pupil's overall performance can guide the teacher in deciding whether or not the text is at an appropriate level of difficulty (see page 101-106).

The informal reading assessments that teachers conduct are particularly relevant to rating pupils achievement on the *English Profiles* since they often assess elements of reading that may not be accessible through the administration of standardised, norm-referenced tests or diagnostic tests.

STRATEGIES FOR ASSESSING SELECTED ASPECTS OF READING

In this section, strategies for assessing the following aspects of reading are addressed: emergent literacy skills, phonemic awareness, word recognition, meaning vocabulary, comprehension of narrative texts, and comprehension of informational texts.

1. Emergent Literacy (Pre-reading) Skills

As indicated in the model of reading development presented earlier, the emergent literacy skills that children should acquire before the beginning of formal reading instruction include conventions of print (that words consist of letters, that text progresses from left to right etc.), the purposes and functions of print, letter name knowledge, and phonemic awareness (ability to identify and manipulate the sounds in spoken words). Some of these insights are acquired informally at home or in playschool settings (for example, during storybook reading and daily living routines); others are acquired or built on as a result of structured learning experiences in school, such as shared reading activities or guided writing. Figure E-2 lists some of the indicators of emergent literacy skills that are found in the reading element of the *English Profiles*.

Figure E-2   Selected Indicators — Emergent Literacy

* Responds to and understands print concepts such as letter, word, sentence, line and page (Jnr. Infs., Ind. 7)
* Relates printed signs, labels and notices in the classroom to their meaning (Jnr. Infs., Ind. 2)
* Recognises simple differences between text types (Snr. Infs., Ind. 8)
* Identifies words that rhyme in a set of spoken words (Jnr. Infs., Ind. 5)
* Recognises and names most upper- and lower-case letters of the alphabet (Jnr. Infs., Ind. 4)

A number of formal tests designed to assess emergent literacy skills have been published in recent years. Among the elements of emergent literacy that are measured by such tests are:

* An understanding that print rather than pictures carries meaning
* An understanding that reading proceeds in a left to right direction
* Understanding of terms associated with reading (e.g., *first, last, beginning, end*)
* Ability to discriminate among letters, words and sentences
* Identification of basic elements of punctuation (full stops, question marks etc.)

Children's emergent literacy skills can also be assessed informally in the context of early reading and writing activities. Part of this involves observing children as they interact with stories and other forms of print. Teachers will obtain information on children's knowledge of the parts of a book, their understanding of the language of reading, or their ability to track print when listening to and looking at a book being read aloud. Checklists are useful tools for recording the results of informal assessments of children's emergent literacy skills. In some checklists, reading and writing skills will appear side by side (see Figure E-3).

Figure E-3[6] **Checklist of Emergent Reading and Writing Skills**

Skill	First Observation* Date:	Second Observation* Date:	Third Observation* Date:
Knows the parts of a book and their functions			
Begins to track print when listening to a familiar text being read or when rereading own writing			
Reads familiar texts emergently (i.e., without reading verbatim from the print)			
Recognises some words by sight, including a few very common ones (a, the, I, my, you, is)			
Correctly answers questions about stories read aloud			
Listens attentively to books teacher reads to class			
Demonstrates familiarity with a number of types of genres or texts (e.g., storybooks, informational books, newspapers, and everyday print such as signs, notices and labels)			
Notices when simple sentences fail to make sense			
Retells, re-enacts, or dramatises stories or parts of stories			
Recognises and can name all upper-case and lower-case letters			
Learns many, though not all, one-to-one letter sound correspondences			
Makes predictions based on illustrations or portions of stories			
Given a spoken word, can produce another word that rhymes with it			
Given a set of spoken sounds, can merge (blend) them into a meaningful target word			
Independently writes most upper- and lower-case letters			
Writes unconventionally to express own meaning			
Can name some book titles and authors			

*Scoring Key: ++ Skill clearly demonstrated
                          + Some evidence of skill being demonstrated
                          - Skill not demonstrated

2. *Phonemic Awareness*

Phonemic awareness — the ability to segment words into their constituent sounds or phonemes — is critically important for acquiring the alphabetic principle (the understanding that the letters and spellings of words can be mapped onto the speech units they represent). Unlike oral language, in which attention to the individual sounds in words is rarely necessary, reading and spelling require children to have a conscious awareness of, and be able to manipulate the sounds in spoken words. Phonemic awareness emerges from a more general collection of phonological awareness skills such as the ability to segment a sentence into words, and the ability to segment a word into its constituent syllables. Phonemic awareness is more difficult, and emerges later than awareness of words in sentences or of syllables in words, though it is more directly relevant to the development of reading and spelling in the junior primary classes than in the senior classes. It has been observed that the relationship between phonemic awareness and reading is causal and reciprocal — causal in that skill in phonemic awareness has been identified as a necessary (but not sufficient) prerequisite for learning to read, and reciprocal in that reading itself contributes to the development of more complex forms of phonemic awareness, such as the deletion or substitution of sounds in words. Figure E-4 shows some indicators of phonemic awareness that appear in the reading element of the *English Profiles*.

Figure E-4   Selected Indicators — Phonemic Awareness

- Identifies initial and final sounds in spoken words (Junior Infs., Ind. 8)
- Understands the one-to-one correspondence between written and spoken words (Junior Infants, Ind. 6)
- Identifies words that rhyme in a set of spoken words (Junior Infs. Ind. 5)
- Breaks spoken words into their constituent sounds (Senior Infs., Ind. 9)
- Identifies words that rhyme in a set of spoken words (Senior Infs., Ind. 4)

As with emergent literacy, a number of standardised and non-standardised tests of phonemic awareness have been developed.[7] Typically, such tests are administered to pupils in the 5-7 years age range who may be at risk of experiencing difficulties in learning to read, and older pupils who have reading difficulties. Among the activities that may be found in tests of phonemic awareness are:

- *Rhyming words* – identifying the words that rhyme in a set of spoken words.
- *Odd-word-out* – identifying the 'odd word out' in a set of spoken words (e.g., {leg, peg, *hen*, beg}, or {sun, sea, sock, *rag*}).

- *Sound to word matching* – indicating whether a particular sound can be found in a spoken word (Is there is a /m/ in *man*?).
- *Blending sounds* – forming a word by blending a sequence of spoken sounds (e.g., blend the sounds /m/ /a/ /n/ to form *man*).
- *Isolating sounds in words* – identifying and stating the sound heard at the beginning, middle or end of a spoken word.
- *Segmenting words into phonemes* – segmenting a spoken word into its constituent sounds (e.g., say *make* slowly so that I can hear all the sounds).
- *Counting phonemes* – tapping the number of sounds in a spoken word (e.g., tap the sounds you hear in *man*).
- *Deleting phonemes* – deleting a specified sound at the beginning, middle or end of a word (e.g., what is *sat* without the /s/?).
- *Substituting phonemes* – substituting a specified phoneme for another at the beginning or end of a word (say *fat;* now take away the beginning sound and replace it with */m/*).

There are several classroom activities that can provide teachers with assessment information about beginning readers' phonemic awareness. For example, pupils' ability to recall and recite nursery rhymes is one broad indicator. Observations of pupils' attempts to spell unknown words can also point to whether or not they have difficulties with phonemic awareness. Pupils who have some phonemic awareness will demonstrate a relationship between sounds and letters in their spelling, even if their attempts are unsuccessful in an overall or conventional sense. The use of children's approximate (invented) spellings to make inferences about their learning needs is addressed in Appendix F.

As with other aspects of English, it is important to maintain informal records of pupils' development in phonemic awareness. These include anecdotal notes, checklists and samples of pupils' work (for example, their approximate spellings).

3. Word Identification

As children emerge from pre-alphabetic/emergent literacy stage, and have acquired some level of phonemic awareness, attention will turn to assessing their word identification skills. The indicators in Figure E-5 point to the range of cues that may be used in word recognition [i.e., semantic (meaning), syntactic (grammatical) and grapho-phonic (phonological)] as well as to other aspects of word identification than can profitably be assessed. In general, pupils in the junior classes will be assessed on their achievement of these indicators. However, the indicators may also be of some use to teachers of pupils in the senior classes who experience problems identifying words.

Figure E-5   Selected Indicators — Word Identification

- Identifies a set of basic sight words in familiar and unfamiliar contexts (Jun. Infs. Ind. 1)
- Uses spelling patterns (rimes) in known words to identify unknown words (Sen. Infs., Ind. 6)
- Uses knowledge of sentence context and letter-sound correspondences to read unknown words (Sen. Infs., Ind 5)
- Demonstrates flexibility in combining several cues to read unknown words in a range of texts (First Class, Ind. 10)
- Identifies and blends consonant and vowel patterns (such as onsets and rimes) to read unfamiliar words (First Class, Ind. 8)
- Identifies inflectional endings (*-ed*, *-s*(*-es*), *-ing*, *-ly*, *-er*, and *-est*) while reading words in context (First Class, Ind. 6)
- Divides unfamiliar words into syllables to assist with identification (Second Class, Ind. 2)

Word identification can be assessed using a range of tools including group-administered standardised tests, individually-administered standardised tests, and informal assessments (see Figure E-6). Where group-administered standardised tests include a word analysis subtest, a pupil's score can provide an overall indication of his/her word identification skills relative to other pupils at the same class level, or in the same age range, and indicate whether further testing, using a more refined diagnostic instrument, might be needed. Standardised graded word and sentence reading tests provide somewhat more information. These tests, which are usually administered on an individual basis, call on a pupil to read aloud a set of words or sentences that are graded in difficulty, until a ceiling level is reached. The tests allow the teacher to estimate the breadth of a pupil's sight word knowledge. In addition, pupil's errors can indicate instructional needs. Among the difficulties that might be observed are:

- inability to use context clues;
- overuse of context clues (e.g., over-guessing);
- poor phonemic awareness;
- poor knowledge of letter/sound correspondences (phonics);
- over-reliance on initial letters/sounds to read unknown words;
- inability to blend sounds to form words;
- inability to segment written words into syllables.

Figure E-6   Aspects of Word Identification Assessed by Formal and Informal Measures

	Measure	*Word Identification Elements Assessed*
Formal	Group-administered standardised reading tests	Phonics/word analysis skills Ability to read words, sentences, and paragraphs silently
	Individually-administered standardised word and sentence reading tests	Knowledge of sight words Ability to identify words in sentences
	Diagnostic reading tests	Sight word knowledge Knowledge of letter-sound correspondences (phonics); Ability to blend sounds to form words Ability to identify words in context
Informal	Running records (Records of pupils' oral reading errors)	Sight vocabulary Reading rate Reading fluency Quality of oral reading errors in context (e.g., use of semantic, syntactic and grapho-phonic cues)

Many diagnostic tests include subtests that assess one or more aspects of word identification, including sight word knowledge and a variety of phonics skills. In some cases, phonics skills may be assessed using regularly spelled nonsense or pseudo words in order to eliminate the effects of other word identification strategies (e.g., knowledge of sight words).

An assessment tool that can be incorporated in existing reading programmes is the running record — an informal assessment of oral reading that enables teachers to monitor and interpret, in a systematic manner, the word identification errors that a pupil makes. The analysis of a pupil's oral reading errors can show the degree to which the pupil uses grapho-phonic (phonetic), semantic (meaning) and syntactic (grammatical) information to identify words in context, and the extent to which meaning is being monitored.[8] When time permits, a running record of the oral reading errors of each lower-achieving pupil in the junior classes should be conducted at least once a week. According to one authority 'running records are taken without marking a prepared script. They may be done on any piece of paper. With practice, teachers can take a running record at any time, anywhere'.[9] However, teachers who are new to the technique may wish to record a pupil's errors on a copy of the pupil's text. The following administration procedures should be followed:

1. A passage or story of between 100 and 200 words should be selected. Passages that are shorter than 100 words may be used with children in the infants classes. A set of between 5 and 10 questions about the passage should be developed.

2. The running record may be taken as the pupil reads the text aloud. A record of the pupil's oral reading errors should be made on a copy of the text, or on a blank sheet of paper. Figure E-7 illustrates the most common errors that are recorded and the symbols that can be used to record them, while Figure E-8 shows how a pupil's errors can be recorded on a text

3. After the pupil has finished reading, the number of errors in each of the following scorable categories should be computed — insertions, substitutions, omissions, mispronunciations, non-responses; and the number in each of these non-scorable categories — self-corrections, repetitions, hesitations, and transpositions. Scorable errors are defined as those that interfere with meaning.

4. This and other relevant information about the pupil's behaviours should be recorded using an appropriate recording format such as an Oral Reading Analysis Record Sheet (Figure E-9).

5. The pupil's oral reading accuracy score should be computed. This involves subtracting the number of scorable reading errors from the total number of words in the passage, and dividing the result by the number of words in the passage. For example, if a pupil make 20 scorable errors in a 200 words passage, his/her oral reading accuracy would be 180/200 or 90%.

6. The pupil's reading comprehension score should be computed and recorded. If the pupil correctly answered 7 of 10 questions, his/her score would be 70%.

7. Although not essential, it may be helpful to record a judgement regarding whether or not the text read by the pupil is at his/her independent, instructional or frustration level, using the criteria in Figure E-10
The *independent reading level* is the level at which a pupil should be able to read without help of any kind from the teacher. This is the level at which one would normally expect the pupil to be reading when he or she reads a library book selected voluntarily.
The *instructional reading level* is the reading level at which a pupil would normally be reading when required to read a history, geography or environmental studies text, or a class reader, without having had a chance to read it previously.
The *frustration reading level* is the level at which reading material simply becomes too difficult for the pupil to read.

8. Make a judgement regarding the pupil's reading rate, which is measured in number of words per minute. The following are suggested minimum rates for instructional-level materials: Senior Infants: 50 words per minute; First Class: 60 words per minute; Second Class: 70 words per minute; and Third Class: 80 words per minute. Reading rates

that fall below the suggested levels may point to text that is too difficult, or to general difficulties with word identification processes.

9. Record the number of oral reading errors in each category on the Oral Reading Analysis Record Sheet. The number of non-scorable errors relative to the number of scorable errors is an important indicator of strategy usage in oral reading, with more proficient readers making more non-scorable than scorable errors.

10. Complete the section, 'Analysis of Oral Reading', on the Oral Reading Analysis Record Sheet. For each element, indicate whether (a) there is no difficulty; (b) some attention is required; or (c) there is a clear problem. The errors of pupils who use *semantic* context clues tend to reflect the meaning of a text (e.g., 'I climbed the steps (instead of stairs)'). A syntactically appropriate error usually represent the same part of speech as the word in the original text (for example, 'steps' is syntactically acceptable in the above example since, like stairs, it is a noun). Finally, a grapho-phonically appropriate error shares some elements with the target word (e.g., 'pretend' for 'prevent').

The records of a pupil's oral reading errors that a teacher develops can be used to make inferences about pupils' learning needs, and can also serve as reference sources when the *English Profiles* are being completed at the end of the school year.

Figure E-7   Conventions Used for Recording Oral Reading Errors

Scorable-Error	Marking	Example
Omissions	Circle the omission	He likes the (big) yellow car.
Insertions	Use caret (^), add insertion	He likes the big yellow car. (*is* ^)
Substitutions	Cross out original, add substitution	He likes the big ~~yellow~~ car. (*red*)
Mispronunciations	Write phonetical pronunciation	He likes the big yellow car. (*looks*)
*Non-response (Wait 5 seconds before providing help)	Write NR over pronounced words.	He likes the big yellow car. (*NR*)
Non-scorable Error	**Marking**	**Example**
Self-Correction	Write SC above the text word.	He likes the big yellow car. (*SC*)
Repetition	Underline word/phrase each time it is repeated.	He likes the big <u>yellow</u> car.
Hesitation	Put a checkmark at the point of hesitation.	He likes the big ✓yellow car.
Transposition	Put reverse S around transposed items.	He likes the (big yellow) car.

Figure E-8   Example of Marked-Up Text

bench
The children had been playing on the beach all day. It was getting late
bottles
now and they gathered up the buckets, spades, balls, boats and other toys.
NR
As they made their way towards the station, Paula noticed that Scruffy
missed   *fifty*
was missing. 'He was here just fifteen minutes ago,' said Tom. 'I saw him

chasing another dog in the water.' The children looked back to the sea.
mother
There was no sign of Scruffy, or any other dog for that matter. The

children searched ~~everywhere~~, but still they could not find Scruffy. They
quickly   *offer*
walked quietly back to the ~~station~~.* The man in the ticket office said he

would look out for Scruffy, and took their telephone number, just in case

the dog showed up later.

*Non-scorable error (repeated word)

Total Words: 123;   Total Scorable Errors: 9;   Accuracy: 114/123=93%

Figure E-9   Oral Reading Analysis Record Sheet

Pupil's Name: _____ **Class :** _____ **Teacher:** _____

Reader/Text: _____ **Page(s):** _____ **Date:** _____

Pupil's Behaviours during Oral Reading (yes/no)

	Excessive head movement		Word-by-word reading
	Finger pointing		Poor phrasing
	Disregard for punctuation		Pauses
	Loss of place		Hesitates
	Does not read in natural voice tone.		Voicing or lip movement

Reading Level

Reading Accuracy: _____%   Reading Comprehension: _____%

Pupil's overall reading level for the passage: (Tick one)

Independent __   Instructional __   Frustration __

Reading Rate (Tick one)

Fast __   Adequate __   Slow__

Analysis of Oral Reading Errors

Number	Error (scorable)	Number	Error (non-scorable)
	Omission		Self-correction
	Insertion		Repetition
	Substitution		Hesitation
	Mispronunciation		Transposition
	Non-response		

Word Analysis Skills (Tick one box in each row)

No Difficulty	Some Attention Required	Problem	
			Uses semantic (meaning) context clues
			Uses syntactic (grammar) context clues
			Uses grapho-phonic clues
			Combines cues to identify unknown words
			Self-corrects oral reading errors
			Breaks longer words into parts
			Identifies long and short vowel sounds

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Figure E-10   Criteria for Identifying a Pupil's Independent, Instructional and Frustration Reading Levels.

Level	*Reading Accuracy*	*Comprehension*
Independent	99%-100%	90%-100%
Instructional	95% - 99%	50% - 90%
Frustration	< 90%	< 50%

4. *Meaning Vocabulary*

Many pupils who pass through the early phases of learning to read without undue difficulty may run into problems when they encounter more complex texts from third class onwards. Vocabulary knowledge, or knowledge of word meanings, has been identified as a primary factor in limiting reading growth, reflecting an increasing inter-dependence between reading vocabulary and reading comprehension once children's basic word identification skills have been established. Figure E-11 lists some of the indicators of meaning vocabulary in the reading element of the *English Profiles*.

Figure E-10   Selected Indicators — Meaning Vocabulary

- Uses context to define the meanings of words (Second Class, Ind. 7)
- Identifies common prefixes, suffixes and inflectional endings while reading words in context (Second Class, Ind. 4)
- Identifies the meanings of new words in running text by using a range of cues (Third Class, Ind. 9)
- Identifies and understands the contribution to meaning of prefixes, suffixes and word roots (Fourth Class, Ind. 6)
- Uses the dictionary and thesaurus to select word meanings that are appropriate to given contexts, including words with multiple meanings (Fifth Class, Ind. 4)

It is useful to think of a pupil's vocabulary as being represented by schemata or knowledge structures that are linked to one another through networks of varying levels of complexity and degrees of strength. The schema representing a specific word may contain definitional information and information on the attributes of the word (for example, an elephant is a large animal who has thick skin, a trunk and two ivory tusks). As a result of exposure, whether through instruction or by simply encountering a word during reading (or listening), the pupil may (a) develop a new schema or framework for the word; (b) elaborate on an existing schema; (c) establish a new link or strengthen an existing link between a word's schema and the schemas that represent related words or ideas.

Not all words may be equally well understood. According to one source, word knowledge can be viewed as a 'continuum from no knowledge to a general sense; to narrow, context-bound knowledge; to having knowledge but not being able to access it quickly; to rich decontextualised knowledge of word meaning'.[10] A useful distinction is that between 'fast mapping' and 'extended mapping' of a word's meaning[11]. In 'fast mapping', the pupil acquires a cursory understanding of a word, sometimes after just a single encounter. In 'extended mapping', a more complete understanding of the word is achieved. It may take multiple exposures to a word in a variety of different contexts in order to achieve extended mapping, while, at any given time, individual pupils may be working on as many as 1,600 mappings simultaneously.

An important source of information about the meanings of words is sentence context. Indeed, the meanings of many words are acquired by encountering them in a variety of sentence contexts with each new context adding an additional layer of meaning. One element of the assessment of vocabulary knowledge will examine whether pupils have the strategies that enable them to use sentence context effectively to deduce word meanings.

Many standardised measures of reading achievement include a measure of vocabulary knowledge. A typical item in such measures requires pupils to select a word that means the same as or the opposite of a target word embedded in a short sentence. A pupil's score on a standardised measure of vocabulary knowledge provides a general indication of the breadth of the pupil's vocabulary.

Informal assessment of individual pupil's vocabulary knowledge can be conducted before or after the pupil reads a text. Assessment information can be obtained by asking the pupil to engage in tasks such as the following, and recording the resulting assessment information:

- provide a definition for a word, that is appropriate to the context in which it appears;
- use a word in a sentence to illustrate its meaning;
- provide a synonym or antonym for a word;
- indicate the super-ordinate category to which a word belongs (Jupiter is a planet);
- state some attributes of a word (e.g., a leopard has spots);
- compare the attributes of a word with some related word;
- discuss how a prefix contributes to a word's meaning;
- explain what information a suffix provides about a word;
- show how a root can contribute to a word's meaning (e.g., *phobia* in *electrophobia*, *acrophobia*)
- explain how sentence context can be used to identify or check the meaning of a word;

- identify words that make a text more interesting or effective;
- substitute words used by an author with alternative words;
- locate the meaning of a new word in a dictionary and check its meaning in the context in which it appears.

Like vocabulary knowledge, background knowledge, or the knowledge that pupils have about topics, text structures, themes and concepts, can have a powerful influence on text comprehension. Although broader than vocabulary knowledge, the background knowledge a reader brings to a text can include an understanding of concepts and word meanings. Reading comprehension in general, and inferential comprehension in particular, improves when readers have an adequate level of background knowledge about the topic of the text, and can establish links between their background knowledge and the information in the text. Hence, assessment of comprehension needs to address whether or not pupils' have adequate background knowledge to understand what they read.

Pupils' background knowledge can be assessed by engaging them in whole-class or group mapping activities. One such activity is semantic or concept mapping,[12] in which pupils develop a diagram that illustrates the links between a target concept and concepts already known. By observing pupils as they engage in semantic mapping, the teacher can make a global judgement about the amount of background knowledge held by a group, and how that knowledge is organised.

Where self-assessment is concerned, it may be useful to ask pupils in the senior primary classes to rate their understanding of each word in a set of vocabulary words, before and after reading a text. Each word can be rated according to whether pupils 'know a lot about it', 'know something about it' or 'don't know it'. Some growth might be expected between pre- and post-reading activities.

5. Reading Comprehension – Narrative Texts

Pupils' understanding of a text can depend on a variety of factors. These include:

- reader-based factors — word identification, background knowledge, knowledge of word meanings, knowledge of reading strategies, general intellectual ability and motivation
- the nature of the comprehension task — what is expected of the reader during and after reading
- text structure — the organisational features of the text that serve as a frame or pattern to help readers to identify the importance, order and relations among ideas.

The assessment of reading comprehension should recognise that comprehension may break down because problems arise with regard to

one or more of these factors. Comprehension is a focus of assessment at each class level, but increases in importance from third-class onwards (i.e., as children move into the 'reading to learn' phase mentioned earlier.

Texts may be broadly divided into narrative texts, which are designed to entertain the reader, and informational texts, which are intended to inform and persuade (see next section). Narrative texts, which may be based on real or fictional experiences, include myths, epics, folktales, short stories, or novels.

Figure E-12 shows some of the indicators of comprehension of narrative text that are assessed in the *English Profiles.*

Figure E-12   Selected Indicators — Comprehension of Narrative Texts

- Reads simple stories and retells significant events and details (Junior Infants, Ind. 9)
- Modifies initial expectations (predictions) about the content of a story based on new information in the story (Senior Infants, Ind. 10)
- Reads and retells stories and informational texts in sequence, incorporating important ideas and relevant details (First Class, Ind. 9)
- Makes inferences about ideas and actions in stories (Second Class, Ind. 9)
- Reads a story and draws conclusions about the setting, characters, events, outcome and theme (Third Class, Ind. 3)
- Summarises stories (and informational texts), distinguishing between main ideas and important details (Fourth Class, Ind. 10)
- Identifies changes that occur in characters' feelings and behaviours (actions), and in their relationship with one another in shorter and in longer (book-length) stories (Fifth Class, Ind. 6)
- Identifies and evaluates the themes and values in stories and poems with reference to other texts and to own experiences (Sixth Class, Ind. 4)

Often, narrative texts include such elements as a statement of problem/goal faced by the main character, episodes in which the main character attempts to achieve the goal, and outcomes of these attempts. Pupils who understand that many stories follow a particular structure, and recognise the main elements of that structure in stories that they read will be helped in carrying out the following comprehension processes:

- predicting outcomes
- identifying problems
- making inferences about interactions among characters and their intentions

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- identifying links between background knowledge and events in the text
- inferring causal relations among events
- drawing conclusions
- evaluating ideas
- identifying the sequence of events
- imaging or visualising the text
- asking self-questions during reading

Formal assessment of reading comprehension can occur in the context of administering a standardised, norm-referenced test. A pupil's overall score on a standardised comprehension test can give a general indication of the pupil's reading comprehension level. One difficulty with such tests is that they may not provide the detailed information about a pupil's understanding of narrative text that is necessary to complete the *English Profiles*. A second difficulty is that they may provide relatively little information about a pupil's learning needs. For example, poor performance on a standardised comprehension test can arise from difficulties in one or more of the reader, task or text based factors mentioned at the beginning of this section.

One informal approach to assessing comprehension of stories is to ask comprehension questions that are designed to tap into the required information. For example, if a teacher wishes to probe pupils' understanding of the key structural elements in a text, questions such as the following might be asked:

- Where/when does the story take place? (Setting)
- Who was this story mostly about? (Main character)
- What does the main character want? (Beginning Event/Problem/Goal)
- What obstacles does the main character encounter? (Attempts/Events)
- Does the main character reach his/her goal? (Resolution)
- How did the main character feel at the end? (Reaction)
- What is the writer saying to us about life in this story? (Theme)
- Why do you think the author wanted to write this story? (Theme)
- Is there any thing you would have changed in the story? (Personal Response)
- How did the story make you feel? (Personal Response) Why?

A second informal approach to assessing understanding of stories is to ask pupils to recall what they have read orally or in writing. Pupils' recall protocols can be analysed in the manner suggested in Appendix D (page 86), where a similar approach to assessing pupils' comprehension of stories read aloud by the teacher was suggested. Again, the distinction between unaided and probed recall should be maintained.

Pupils can play a role in the assessment of their own understanding of stories by maintaining reading logs — systematic records of each story or book read that include pupils' personal responses. A reading log can consist of a notebook or sheets that can be placed in a folder or portfolio. For pupils in the junior classes, the following headings may provide a useful structure for recording information about a book:

* date commenced
* title of book read
* author and illustrator
* pupil's opinion of the book (*I liked this book because. . . .*)
* self-evaluation (*This book was easy/difficult for me to read because. . . .*)
* date completed

Pupils in the senior classes can use their reading logs to respond to a book by:

* writing responses to literary components;
* identifying the plot, setting, point of view, theme, character development, links to life;
* extending one or more parts of the book;
* developing scripts for plays, story webs, charts, time lines or written reviews;
* comparing with another book with a similar theme or by the same author;
* writing an extended critical response;
* recording thoughts or feeling in response to reading;
* discussing phrases or words that interested, excited or puzzled them;
* making predictions;
* summarising main events;
* creating alternative endings.

Criteria for scoring each of these elements can be devised for the purposes of assessment. For example, the pupil's reading log could be assessed on the basis of:

(a) literal understanding, as measured by recall and description of basic facts about the story

(b) interpretative understanding, as measured through the pupil's ability to summarise, predict, conclude, compare, or infer, on the basis of information gleaned from the story;

(c) critical understanding, as measured by the pupil's evaluation of each story or book s/he has read.

6. *Reading Comprehension – Informational Texts*

As pupils progress through primary school, they read more and more informational texts — texts that are designed to describe, inform or explain. Such texts may be found in class readers, textbooks and reference materials dealing with subjects such as history, geography, science and social, personal and health education (SPHE). Figure E-13 illustrates the range of indicators of comprehension of informational text that are assessed in the *English Profiles*.

Figure E-13   Selected Indicators — Comprehension of Informational Texts

- Locates items of information in simple informational texts (First Class, Ind. 4)
- Describes simple differences between text types (e.g., stories, poems and informational texts) (First Class, Ind. 2)
- Generates appropriate expectations about the content of informational texts (Second Class, Ind. 8)
- Reads and summarises informational texts, providing several important points (Third Class, Ind. 8)
- Identifies organisational patterns in informational texts (Fourth Class, Ind. 9)
- Compares and synthesises information about a topic, drawing from two or more informational texts (Fifth Class, Ind. 7)
- Adjusts reading speed for specific purposes and for different texts (Fifth Class, Ind. 5)
- Employs several strategies when reading informational texts for research purposes (previewing, skimming, scanning, note-taking, summarising etc.) (Sixth Class, Ind. 7)

A critical factor to consider in assessing pupils' understanding of informational texts is their level of background knowledge about the text. One element of background knowledge is pupils' understanding of the vocabulary and ideas underlying an informational text. A second element is pupils' understanding of the structure underpinning the text. Figure E-14 provides a listing of the main informational text structures, along with their objectives and the terms that signal their use.

Group-administered standardised tests rarely provide specific information about pupils' comprehension of informational texts. For example, the majority of standardised tests assess comprehension using a combination of narrative and informational texts, but do not report separate scores for the two text types. Furthermore, most standardised tests do not establish links between pupils' background knowledge and their comprehension of informational texts. On the other hand, there is plenty of scope in the classroom for conducting informal assessments of pupils' understanding of informational texts.

Figure E-14   Main Informational Text Structures and Substructures

Text Structure	Objective	Signal Words
Definition/Example	To elaborate on the meaning of a term; illustrate through an example of typical or outstanding illustrations	For example, such as, that is, namely, to illustrate, for instance
Comparison and Contrast	To highlight similarities or differences among entities	Similar to, different from, in contrast, however, but, on the other hand,
Temporal Sequence	To describe a series of connected instances, each developing from the preceding one, that results in a product or outcome	First, second, next, originally, finally, before, earlier, later, meanwhile etc.
Cause/Effect (Problem/Solution)	To indicate a sequence of events related in a causal chain; includes the problem/solution pattern	Therefore, as a result of, so that, in order to, because, consequently
Argument and Persuasion	A line of argument laid out so as to present the ideas in the most convincing manner. The correctness of the argument is not necessarily a criterion.	

In the first instance, teachers will want to ascertain pupils' background knowledge about the topic of an informational text, either before reading takes place, or after it has been completed. An important reason for measuring the level of pupils' background knowledge before reading begins is to enable teachers to provide additional background knowledge to those pupils who may need it, and hence increase the likelihood that they will understand the text. Pre-reading assessment of background knowledge can be accomplished by asking pupils to engage in activities such as:

- responding to questions about the topic of a text (e.g., what do you know about elasticity?);
- rating their own understanding of topics or ideas, using an appropriate scale (e.g., 3 — I know a lot; 2 — I know something; 1 — I don't know very much);
- completing a semantic or concept map either individually or as a group.

A focus on the assessment of background knowledge as a pre-reading activity is consistent with the notion of assisting pupils to set their own purposes for reading, based on the information they wish to find out in reading a text. Pupils' ability to set appropriate purposes for reading is also an important indicator of reading development.

A second broad emphasis in the assessment of pupils' comprehension of informational texts will be to ascertain their understanding of the main idea and supporting details. Pupils can be asked to

- identify main ideas and supporting details by using topic headings and subheadings, and paragraph topics;
- infer a main idea of a paragraph or longer text when it isn't stated;
- select a suitable title for a paragraph or longer text, and give reasons for their selections;
- demonstrate links between main idea and supporting details using a visual representation (diagram)

Related to the main idea and supporting details in a text is its organisation (see Figure E-14). Pupils' sensitivity to the organisation of informational texts can be assessed by asking them to:

- identify key words in a text that signal particular text structures such as comparison and contrast or temporal sequence;
- identify structures and relationships among ideas by using text structure frames and graphic organisers that can assist pupils to organise their summaries;[13]
- develop oral and written summaries that are based on texts with familiar structures.

The evaluation of pupils' written summaries can focus on the following:[14]

- *Accuracy/clarity* — the relative absence of misleading statements, incomplete ideas, confusion of facts, grammatical errors causing confusion, incorrect interpretation and incorrect ordering of information
- *Main idea* — the degree to which the writer focused primarily on the main idea and placed less emphasis on the minor ideas.
- *Brevity* — the length of the summary, which is related to the ability to condense material.
- *Use of own words* — the ability to put the ideas in the pupil's own words, avoiding the use of excessive quotation or plagiarism.

In addition to assessing understanding of main ideas, attention will need to be given to assessing pupils' study skills. Again, assessment of study skills can proceed not only in English but in a range of other subject areas where pupils are required to extract information from texts and use that information in purposeful ways. One way to assess pupils' study skills is to use a checklist. One such checklist list divides reading-study skills into three broad categories: (1) special study-reading comprehension skills; (2) information locating skills; and (3) study and retention strategies (see Figure E-15).

Figure E-15   Study Skills Checklist

Study Skill	*No Evidence*	*Some Evidence*	*Much Evidence*
1. Specific study-reading comprehension skills A. Ability to interpret graphic aids (e.g., maps, globes, graphs, charts, tables, cartoons, pictures, etc.) B. Ability to follow directions **2 Information location skills** A. Ability to vary rate of reading (e.g., can the pupil scan? skim? Read at slow rate for difficult materials? etc.) B. Ability to locate information by use of book parts (e.g., can the pupil use book parts to identify – title? author? publisher? edition? copyright date?) C. Ability to locate information in the library (e.g., can the pupil locate material by subject? by author? by title?) D. Ability to locate information in an electronic database **3. Study and retention strategies** A. Ability to study information and remember it (e.g., Can the pupil highlight important information? Underline important information? Ask and answer questions to increase retention? Employ a systematic study procedure?) B. Ability to organise information (e.g., Can the pupil take notes? Write a summary of a paragraph? Make graphic aids to summarise information? Use an outline to write a report?)			

Finally, assessment of pupils' comprehension of informational texts might focus on their metacognitive knowledge. Metacognitive knowledge involves knowledge of self as a learner, knowledge of task demands, and motivation to use comprehension/study strategies. In general, pupils with strong metagocnitive knowledge perform better on comprehension and study tasks than pupils with weak metacognitive knowledge. Assessment of metacognitive knowledge is typically informal and can easily be linked to other assessment activities, such as pupils' evaluations of their background knowledge, or their ability to apply strategies such as setting purposes for reading or identifying important information (main ideas and important details). Metacognitive knowledge can be assessed by interviewing pupils and determining whether they can:

- evaluate their own level of background knowledge about a topic, and indicate what can be done to increase background knowledge;
- explain why one strategy would be more appropriate to use than another;
- indicate whether a strategy had been effective or not;

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- think aloud after reading a text segment and indicate their initial understandings;
- indicate if they have re-read/returned to a problematic segment of text;
- clarify confusions or comprehension problems by asking appropriate questions.

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[1] The model presented here draws on the work of Chall (1983) and Ehri (1995).
[2] Ehri (1995), p. 129
[3] Ehri (1995), p. 121
[4] Chall (1983)
[5] Chall (1983)
[6] Adapted from Snow, Burns and Griffin (1998).
[7] See, for example, Yopp (1995) and Ericson and Juliebö (1998).
[8] Goodman (1973)
[9] Clay (1993), pp. 22
[10] Beck and McKeown (1991)
[11] Carey (1978)
[12] E.g., Heimlich and Pittelman (1986)
[13] See, for example, Lewis and Wray (1997).
[14] See Taylor (1986)