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PrimTEd Teaching Reading Study Guides

Study guide 1:

Introduction to teaching reading

Primary Teacher Education project
Department of Higher Education and Training

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Contents

Introduction to teaching reading

How do children learn to read and write?

To be an effective teacher of reading and writing one needs to know how children learn to read and write.

What is reading? What is writing? What does learning to read and write involve? And how can a teacher best assist in that learning?

This study guide provides a quick and simple overview of what reading is and what is involved in learning to read and write. Before studying the specific processes of literacy teaching it is helpful to see this big picture and get an overall sense of the many components of literacy learning.

This overview should enable you to see the whole set of processes involved in a comprehensive literacy teaching curriculum. It will also help you to see that literacy involves a continuum of development.

What this overview contains

This overview has seven units:

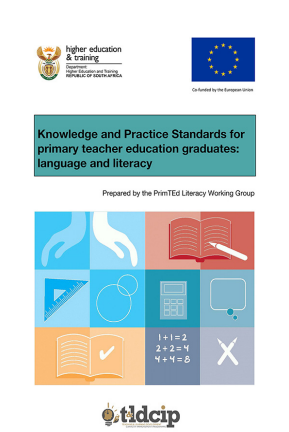
1. The definition and meaning of literacy
2. The relationship between language and literacy
3. How does the brain "read"?
4. The processes of learning to read and write in literacy development in children
5. A comprehensive reading programme
6. Enabling conditions for literacy
7. Expectations and assessment

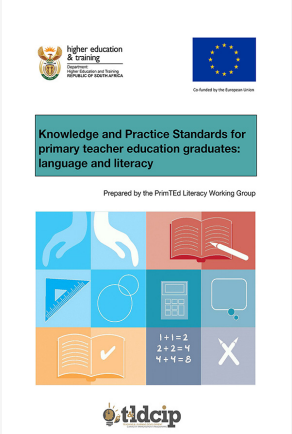
What literacy teacher standards does this study guide cover?

This study guide covers all the standards, although only in a very broad way. The four sets of standards relate to:

Knowledge: Graduate teachers have knowledge of language and literacy and how to teach learners to read and write

Practice: Graduate teachers can organise systematic language and literacy instruction with a focus on reading and writing, guided by the requirements of the curriculum





English First Additional Language: Graduate teachers demonstrate that they understand the knowledge, skills and processes required to teach English as a First Additional Language as a subject and as the general medium of instruction

First Additional language: Graduate teachers demonstrate that they understand the knowledge, skills and processes required to teach African Languages or Afrikaans as First Additional Languages

The detailed standards can be found in the document:

https://www.jet.org.za/clearinghouse/projects/primted/standards/literacy-teacher-standards/literacy-teacher-standards-2020-1.pdf

1. The definition and meaning of literacy

What is literacy?

The word "literacy" in everyday speech simply means "the ability to read and write".

That simple definition can be expanded somewhat to mean the ability to read written information of various kinds and to write appropriately in a range of contexts.

A fully literate person is able to integrate speaking, listening, viewing and thinking with reading and writing. Such a person is also conscious of the cultural knowledge which enables a reader to recognise and a writer to use language appropriate to different social situations.

Such a basic definition of literacy (the ability to read and write) has to be understood along with the modern extensions of the word to cover various so-called literacies (knowledge of a particular subject, or a particular type of knowledge, or ways in which literacy is used).

What are "literacies"?

In recent decades there has been increasing use of the term "literacies". How does this differ from "literacy" meaning the ability to read and write?

There are several different uses of the term "literacies".

Being able to read and make multi-modal communications

In this sense "literacies" refers to the ability to understand or use visual images, computers, the internet and other technology, and other basic means to understand, communicate, gain useful knowledge, and use the symbols that are dominant in a particular culture or society.

In modern communications we use many different written forms combined with **auditory**, **visual**, **spatial**, **oral** and **tactile** representations.

Information, especially in the social media, appears in **multi-modal** formats, increasing the importance of understanding these representations as we are increasingly exposed to and reliant on these types of format.

Typical of such "literacies" are the following:

Visual literacy
Understanding visual communications, including the ability to process and represent knowledge through images.

auditory: having to do with hearing
visual: having to do with seeing
spatial: having to do with position in space
oral: having to do with speaking
tactile: having to do with touch

multi-modal: the same thing taking many different forms or varieties

Digital literacy
Gathering and synthesizing information from digital mediums, including online internet sources.

Technological literacy
Using technology responsibly to learn, communicate, distribute, and create.

So, increasingly in the modern world, to be fully literate means to be literate in multiple ways, being able to gain meaning from, interact with, and produce a variety of "texts", including picture books, text books, graphic novels, comics, posters, and interactive computer displays where meaning is conveyed to the reader through varying combinations of written language, visuals, spatial situation and other means. In principle all forms of communication have some degree of multi-modality.

Having foundational knowledge of a particular area of knowledge

In another sense, people nowadays often speak of a person being "literate" in something when referring to their competence or knowledge in a specified area. Thus one can be "literate" in the foundational or basic knowledge of the terms, discourses, jargon, symbols and basic principles of a range of disciplines and fields of knowledge or in a particular set of skills. So, odd as it may sound, one can say that people who can fix their own motor cars are "literate in car mechanics".

Literacy is influenced by social structures

Any form of literacy – activities of reading and writing – is influenced by the social structures in which it is operating. Thus one can speak of many "literacies" associated with different domains of life, operating in multiple modes. This sociological view of literacy practices conceptualises literacy as being patterned by social institutions and power relationships and always rooted in a particular **ideological** world view.

ideological: having to do with a set of opinions, ideals and beliefs of a group or an individual, especially concerning politics, economic systems and religion

Reading and Writing are about meaningful communication

The purpose of reading is making sense of a communication received through a printed (or handwritten or electronic digital) text. Writing is the encoding of such a communication from which others can make meaning.

What is **encoded** in writing is spoken language, the primary means by which human beings communicate with each other. The ability to read is therefore always determined by the readers' knowledge of the language and the vocabulary used in the written communication.

Comprehending the meaning of texts is also influenced by the readers' background knowledge relating to the communication, and its particular social context.

encoding: the process of putting something into code (in this context putting spoken language into a written code made up of letters of an alphabet that represents the sounds in the language)

The invention of written communication was one of the most significant factors in the development of human societies and communication through texts is vital to the running of all modern societies. The invention meant that communication messages could be stored – beyond the ending of spoken communication and even beyond the lifespan of the communicator. Communication messages could now be transported far from the site where the original speech or writing took place.

Apart from its writing's usefulness in the coordination of a society, individuals who are literate can gain enormous benefits, including pleasurable enjoyment, from being fluent readers.

Failing to develop full literacy is bad for the thinking necessary to function effectively in a modern society – if people are to use their brains effectively in an increasingly complex society with a growing knowledge economy. Generally, illiteracy may well be one of the largest barrier to South Africa's growth and development.

Because of the importance and necessity of literacy in South Africa it is now a constitutional right of every person, children and adults, to have a basic education, which includes being taught to be a literate and numerate.

South African Constitution
Section 29 (1) (a)
Education. –
(1) Everyone has the right –
(a) to a basic education, including adult basic education;

Unit 1: Self test questions

1. Produce definitions giving your understanding of the terms ‘literacy’ and ‘literacies’
2. Fill in the missing technical terms:

_____ – having to do with hearing

_____ – having to do with seeing

_____ – having to do with position in space

_____ – having to do with speaking

_____ – having to do with touch

_____ – the same thing taking many different forms or varieties

3. Define “encoding” in the context of reading and writing.
4. What is “visual literacy”?
5. Give examples of reading and writing as meaningful communication.
6. Is literacy a right in South Africa?

2. The relationship between language and literacy

Literacy learning rests on a foundation of oral language and literacy and therefore literacy teachers need to demonstrate knowledge of the key components of language.

Scientific evidence supports the fact that reading is related to language. To read, we have to break up spoken words into smaller units, understand that the letters of the alphabet represent the sounds of those smaller units, have a **vocabulary** that is meaningful in relation to our background knowledge, and have the motivation to read to gain both valuable information and enjoyment.

What do we need to know about language?

Teachers need to know certain things about language, that acquiring a language as a young child is a natural capacity all human beings have, that all languages are in principle equal, and that, normally after a certain age (about 9 years old), one has to learn a further language rather than simply acquire it.

As a teacher you also need to know that learning to read is not a natural process, unlike learning to speak a mother tongue, and requires special instructional methods.

The basics of language

Children are born with the capability to learn and use a language. They acquire a language simply by being exposed to language as they grow. Which language (or languages) they learn depends on what is spoken by their caregivers and community. From about 18 months to four years is the critical period for learning a language by **acquisition**. Later on, learning an additional language becomes more difficult – it actually has to be intentionally learned.

All human languages have the same deep structure and in that sense all languages are equal, though some languages have larger vocabularies than others. All languages are based on basic sounds that can be spoken and heard – these basic sound units are called **phonemes**. Young children soon learn to discriminate between sounds in their mother tongue but start to loose the ability to discriminate between sounds found only in other languages. From birth children respond to spoken words and can pick up the sequence, the **morphemes**, in which sounds are arranged into meaningful parts of words and full words. They also start to learn grammatical rules and by the age of three most children have mastered a large number of them.

The oral language acquired by the child in its home language is the foundation for literacy and especially for comprehension in literacy. And that oral language needs continuing development in school.

vocabulary: the words used in a particular language

acquisition: language acquisition is the natural process by which a language is learned by a young child

phoneme: the smallest unit of a speech sound that makes a difference in communication (e.g. in the two English words "bat" and "hat", the sounds for "b" and "h" are different phonemes that change the meaning of the two words)

morpheme: the smallest meaningful grammatical unit of a language, that cannot be further divided (e.g. in the English word "incoming", "in", "come", and "ing" are morphemes. In the word "pins", "pin" and the suffix "s" are morphemes. The word "pin" is a stand-alone morpheme but the "s" cannot stand alone.

noun: a word used to refer to a thing, a person, an animal, a place, a quality, an idea or an action

verb: an action word in a sentence that describes what the subject is doing

consonant: a speech sound in which the air is at least partly blocked by the position of the tongue, teeth or lips. The majority of letters in the alphabet represent consonants.

vowel: a speech sound produced when the breath flows out through the open mouth without being blocked by the teeth, tongue, or lips. There are long and short vowels.

oral language: the spoken language system through which we use spoken words to express knowledge, ideas, and feelings

literate language: language use influenced by written language that is denser, with a more technical use of words and complex sentences

intonation: the pattern or melody in speech that shows the attitudes and emotions of the speaker. It is indicated by variation in the pitch level of the voice, but in languages such as English, stress and rhythm are also involved. It is to be distinguished from tone in tonal languages where the same word has a different meaning depending on the pitch with which it is spoken.

stress: the degree of emphasis given a sound or syllable in speech or to certain words in a phrase or sentence

The fluent use of spoken language is partly dependent on exposure to language – to extended conversations. Children in well-off families tend to hear more words spoken to them than in poorer families (and language delivered by television or radio does not work). Children with richer vocabularies do better in school. Estimates are given of linguistically advantaged children entering into Reception year or Grade 1 knowing two to four times the number of words than the linguistically disadvantaged.

The terms we use to describe language

Understanding the basics of how one's own language works contributes to proficient reading and writing.

At a very basic level recognizing the difference between **nouns** and **verbs**, **consonants** and **vowels**, or **oral** and **literate** forms of language is essential. Most people gain this knowledge in their school education.

However, for a deeper understanding of language and literacy, one needs to know the some of the more technical terms used to describe the various components of all languages:

phonology: the organization of sounds in a language and how and when certain sounds can be combined

morphology: the structure of words and parts of words, how they are formed, and their relationship to other words in the same language. Morphology also looks at such things as **intonation** and **stress**, and the ways context can change a word's pronunciation and meaning.

grammar: the complete set of rules about the structure of a language and therefore of what are acceptable sentences, clauses, phrases and words

syntax: the rules about the arrangement and order of words and phrases to create well-formed sentences in a language

semantics: the study of meaning at the levels of words, phases, sentences and narratives in language

pragmatics: the ways in which context contributes to meaning

All these technical terms are useful in describing the relationship between spoken language and literacy.

Two terms of importance in describing the written form of a language are:

phonics: the way in which the sounds of a language are matched to letters in the alphabet used in reading and writing

orthography: the way in which letters are used to spell words in a written language. It includes the norms of spelling, hyphenation, capitalization, word breaks, emphasis, and punctuation.

The differences between languages and between dialects

Teachers need to have a good knowledge of such language variability in order to make good instructional decisions.

The languages used in South Africa have a number of differences. Teachers' knowledge of the differences in phonics, in the other components of the spoken languages, and in the orthography of written languages, can assist them significantly in the teaching and learning of languages and literacy. A teacher has to understand that phonemes, morphemes, words, phrases, and sentence structure work differently across languages.

For example, the African languages in South Africa are **agglutinative languages** (where several morphemes are added to a noun or verb to adjust its meaning in a sentence), whereas English and Afrikaans are **analytic languages** (where the forms of the words do not change but the relationship between the words in the sentence are shown by helper words and word order).

The way the agglutinative African languages are written down also differ. Some are written conjunctively (the **affixes** and the word root are written joined together, e.g. as in Nguni languages) or disjunctively (separated out as in the Sotho/Tswana languages).

Many errors that learners make in speaking or writing a new language are understandable because of these differences.

Dialects may also cause difficulties to learners who are expected to learn and use a standardised form of the language when their home language is a non-standard form. Dialects have different phonemic patterns.

Dialects which are the language of children's families and local community should not be disrespected. They are not 'bad' language, or inferior or slang or street talk. But learners may need to learn the standard dialect because it is the dialect of school and advancement in society.

Most printed material uses a standard form of the language whether it be school texts, religious texts, government communications or newspapers and magazines.

Thus, taking English as an example, there is standard British English and American English. Within England there are regional dialects such as Cockney and Scouse. In South Africa there are many dialects. Only some of those dialects have become standardised for written communications. For example the standardised isiXhosa is largely based upon three dialects, those of the Ngqika, Thembu, and Ndlambe, but others such as the Hlubi, Mpondo and Bhaca dialects are not standardised or used in the school system and government communications. Which dialects become standardised or dominant usually depends on past history, politics and economics.

agglutinative languages: In agglutinative languages several morphemes are added to a noun or verb to denote case, number, gender, person, tense, etc. Usually, an agglutinative language starts with a word root, and creates new words by "gluing" small, meaningful parts – called prefixes (if you glue them to the front of the root), infixes (in the middle) or suffixes (if you glue them to the back). Words may contain different morphemes to determine their meanings, but all of these morphemes (including stems and affixes) remain, in every aspect, unchanged after their joining.

analytic language: These languages show the relationship between words in sentences with helper words (prepositions, particles) and word order rather than by changing the forms of the word. Most analytic languages have few morphemes per word.

affix: a morpheme that is added to the base form or stem or root of a word and modifies its meaning. A prefix appears at the front of a word, an infix inside the word and a suffix at the end of a word.

dialect: a particular form of a language which is peculiar to a specific geographical region or social, cultural or class of people.

Irregularities in languages

Some languages have forms of some words which are irregular, that is, they do not obey the normal rules of that language.

English in particular, because of the way during its history that several languages were merged together, has many irregular forms (and strange and complicated forms of spelling). For example that past tense of *run* is not *runned* but *ran*, the plural of *man* is not *mans* but *men*. Children learning English, whether as their mother tongue or as an additional language will try to apply the normal grammatical rules. So they have to be formally taught the correct irregular form.

The building of vocabulary

lexicon: a catalogue of all the words in a language

Almost every classroom teacher recognizes the need to teach vocabulary (the lexicon), and most teachers do so. However, it has to be recognised that most new words are learned outside of school where words are learned in context and often related to the interests of children. New vocabulary is always most easily learned in connection to other words related to that topic.

Teachers should be aware of the principles of word formation in the language they are teaching because such knowledge can aid their students in vocabulary acquisition. Teachers have to have an understanding of the morphology, of words, that is their structure, how they are formed, and their relationship to other words in the same language.

Understanding the morphology of words is particularly important in teaching English vocabulary. Anglo-Saxon English was originally a Germanic language, related to Dutch and German. English shares much of its grammar and basic vocabulary with those languages. It was also influenced by Norse. Then after the Norman Conquest in 1066 English was greatly influenced by Norman French, which became the language of the ruling class for a considerable period, and by Latin, which was the language of scholarship and of the Church. Subsequently, as an international language, English also adopted many foreign words from languages around the world. This has meant that English has a much larger vocabulary than many other languages. It has many words for the same general thing but with very subtle differences in meaning.

Unfortunately, many of the words in English are spelled in the form they were in the original languages. Because of the complex history of English, learning to read texts in English is thus very challenging. Even native speakers of English take longer to learn to read fluently than school children in most other languages. So primary school teachers need to be very aware of the way in which morphemes are representation in English as this will help learners learn more efficiently to read and write English.

An important part of acquiring a vocabulary suitable for academic work is learning how to break up (parse) new words into their component parts and morphemes, rather than simply treating complex words as long words.

What is academic language?

Learning to use the formal speech of school is an important part of the educational development of children. This academic language differs from their normal everyday language use. It is the language used in classroom lessons, books, tests, and assignments.

Many of the norms of academic language may be very different to the home language and cultural norms of the learners. Few children arrive at school fully competent in the language required for academic text interpretation. It is important that the teacher be consciously aware of these academic language norms so that they can help children understand what is expected of them.

As children progress through the grades they will need to acquire the vocabulary, grammar and punctuation and strategies for the more complex and precise language required in speaking and in writing extended, reasoned texts in schools. Teachers have to use a variety of methods and strategies to teach students the norms of academic language in the content areas and to help them incorporate these norms in their classroom usage of language. This is especially true for English Additional Language learners.

Learning to read is not a natural process

Although reading and writing are inseparably linked to spoken language, there is one huge difference. Learning to read is not a natural process, unlike learning to speak a mother tongue.

No child receives any "natural" practice in understanding that written words are made up of letters representing smaller sound units. To read we have to adapt, or train, our brain to perform in ways it wasn't naturally designed to work. Strong **neural** connections have to be made between those parts of the brain that deal with the sounds and the grammar of a language with the part of the brain that registers visual details, so that writing can be recognised as a representation of the sounds of spoken language.

neural: having to do with the nerve cells in the brain and other parts of the nervous system

In the next unit you will study a simple description of how the brain is engaged in the reading process: how different parts process the sounds we hear in language, another part (that predominantly registers visual details (and particularly the details of human faces and objects)) is activated by the visual features of the letters, and another part accesses meaning.

Unit 2: Self test questions

1. Distinguish between a phoneme and a morpheme and give an example of each.
2. Distinguish between a consonant and a vowel and give examples of each.
3. What is the technical term used to describe:

   the organization of sounds in a language and how and when certain sounds can be combined – _____

   the structure of words and parts of words, how they are formed, and their relationship to other words in the language – _____

   the study of meaning at the levels of words, phases, sentences and narratives in language – _____

   the rules about the arrangement and order of words and phrases to create well-formed sentences in a language – _____

   the complete set of rules about the structure of a language and therefore of what are acceptable sentences – _____

   the study of meaning at the levels of words, phases, sentences and narratives in language – _____

   the ways in which context contributes to meaning in language – _____
4. What is an affix?
5. Give an example each of an irregular noun and verb in English.
6. Define the following words or phrases:

   intonation:

   tone:

   stress:

   agglutinative language:
7. Distinguish between a consonant and a vowel and give examples of each.
8. Is learning to read a natural acquisition like learning to speak?

3. How does the brain read?

Before looking at how the human brain actually reads and makes sense of written texts, one needs to recognise that learning to read typically goes through three stages of development (Frith, 1985, 1986), or six stages or steps if one includes writing.

Stages of reading development

In the first brief stage, the **pictorial** (or **logographic**) stage, the child has not yet grasped the logic of alphabetic writing, but recognises a few whole words as if they were objects or faces. Typical examples are words and logos such as STOP, KFC, Coca-Cola.

The next **phonological stage** is when the child starts learning to read and is best done at age five or six (when the brain's visual recognition process is in place but still **plastic**). The child discovers that speech is made up of separate sounds, **phonemes**, that can be combined is many ways to make words. The child's awareness of this is called **phonemic awareness**.

The child learns to decode letters (**graphemes**) into sounds (**phonemes**). This is a process of constant **reciprocal** interaction as reading skills develop.

Without explicit teaching of the alphabetic code, conscious manipulation of phonemes does not emerge, and children cannot acquire a genuine mastery of the alphabetic writing system.

The child no longer tries to "photograph". whole words (as in the pictorial stage) but attends to letters and letter groups. The child learns to sound out words and can sound out even unfamiliar words.

Finally there is the **orthographic stage** in which word recognition becomes fast and automatic, though uncommon words are read more slowly than frequent ones. Gradually letter-to-sound decoding is overtaken by fast word recognition and word length gradually ceases to play a role.

While going through these stages the functioning of some parts of the brain starts to change.

Learning to read changes the brain

Modern scientific research has shown that several pathways for messages in the brain are changed during the process of learning to read (and that this process will go on for some time until adult).

Not only the way the brain functions but the actual structure of parts of the brain change (the nerve fibres joining the left and right hand side of the brain get thicker and this means that more information can be exchanged between them). So the human invention of literacy influences the way one's

logographic: relating to written symbols that correspond to whole words

phonological: relating to rules of how a language sounds, and how and when certain sounds can be combined

plastic: (of a substance, material or process) easily shaped, moulded or changed

phoneme: the smallest unit of a speech sound that makes a difference in communication

phonemic awareness: an individual's awareness of the sound structure of words

grapheme: a written symbol that represents a sound (phoneme) and can be a single letter or a sequence of letters

reciprocal: when between two things there is mutual action on each other

orthographic: related to the conventional spelling of a written language in which letters are combined to represent sounds and words

brain develops and how it interacts with the environment. So learning to read and write changes our cognition. [This does not mean that our basic, usually genetically influenced, "intelligence" changes.] Some of the things that change in our **cognition** are our understanding of the structure of language, our phonemic awareness, our memory for words and visuals, the way we see things and interact with them in space, how we recognize and name objects, and how we solve problems. Literate people may however lose some visual skills.

Whether the 'rewiring' of our brains by learning to reading and write is helpful to us depends upon the kind of society we live in – and currently society tends to reward good readers, indeed it is very hard to function effectively in a modern society without literacy.

Some of the other things that research has discovered about how the brain reads are the following:

- The areas in the brain used for reading are identical for readers in all languages and all cultures, that is, there is a universal way the brain is used for reading.
- We automatically access speech sounds when we read.
- All **scripts** need to have certain common features to be readable.
- Our visual system cannot avoid automatically cutting up words into their elementary parts.
- When we read a string of letters is stripped of all its irrelevant features like **font**, **case**, and **size** and broken down into the elementary components that will be used by the other parts of the brain to work out sound and meaning.

cognition: the mental action or process of thinking, knowing, remembering, judging, and problem-solving. These are higher-level functions of the brain and include language, imagination, perception, and planning.

script: the letters or characters used in writing

font: a typeface used for printing, e.g. Cambria, Calibri, Arial, Times New Roman. Each font has its own characteristics.

case: whether letters are in upper (capitals) or lower case

size: the size of printed letters, measured by their height (usually in points (pt)). This text is in point size 10 (about 3.5 mm high).

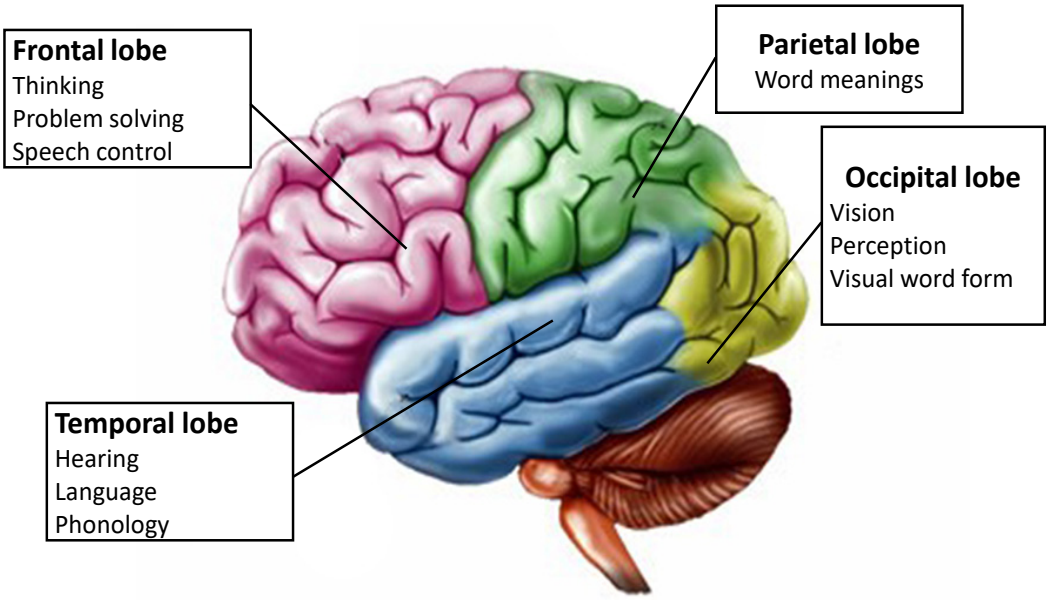
What happens in the brain when we read?

The ability to read and write is an unnatural process that makes new use of innate functions in our brains including visual reception, aural reception, language production centres and motor (movement of the body) function.

To understand the reading process one needs to have some knowledge of the basic structure of the brain. The brain is divided into two hemispheres (left and right), though connected by various nerve fibres. Each hemisphere is made up of nerve cells in folded lobes. Because language is precessed in the left part (hemisphere) of the brain, reading takes place there too. Each lobe handles certain specialised functions relating to reading (see diagram).

The general process of reading involves taking in visual information (written text) which is processed in the occipital lobe at the back of the brain, processed in a so-called "letterbox" area there, and linked to an auditory processing centre in the temporal lobe which connects the letters to the sounds they represent, which are then interpreted in part of the parietal lobe (Honig *et al.*, 2018, pp. 4-5, Dehaene, 2009).

Together, these several regions of the brain take in written words and process them into a meaningful form we can understand – spoken words, even if we don't say them out loud.



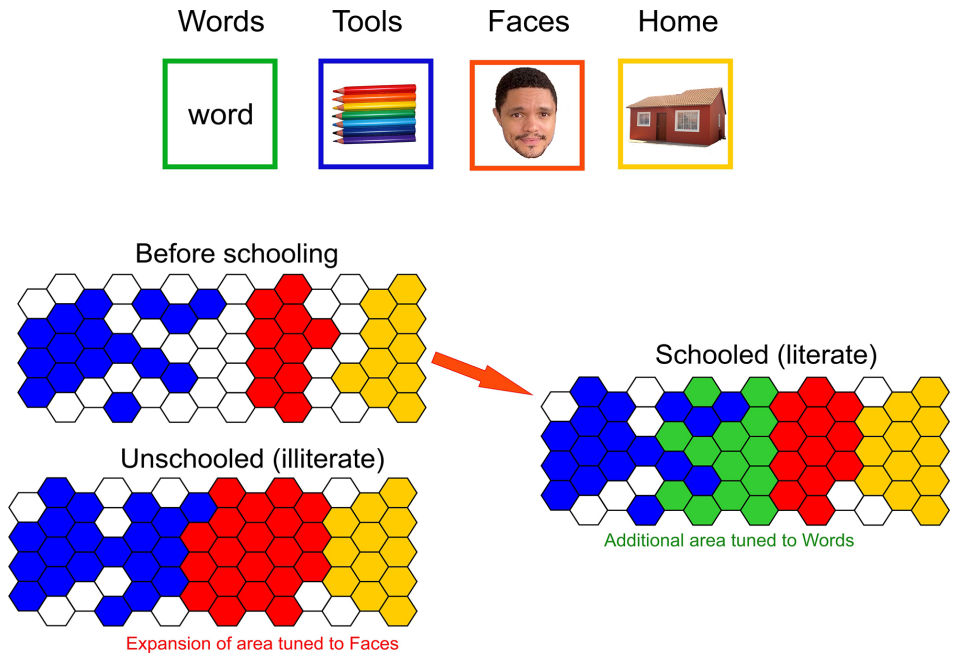
Adapted from: Dehaene, S. 2009. ***Reading in the brain***. New York: Penguin

How does the brain process the letters?

In the back of our head, in the occipital lobe of the brain, is where we "see" images. The **neurons** there are specialised to "see" three main categories of things: faces, places (such as our home or immediate environment), and objects and tools.

neuron: a nerve cell

When we start to learn to read, some of these visual brain neurons, previously concerned with object or face recognition, are instead committed to letters and various combinations of letters. This is schematically illustrated below. For the unschooled, some neurons are already tuned to faces, the home living environment and tools and objects. If they remain unschooled and illiterate there will be greater growth in the number dealing with faces. However, those who become literate will use many of the neurons for dealing with words (at some cost to expansion of face recognition).



bigram: a sequence of two adjacent letters. Some bigrams are more frequent than others, e.g, the sequence *th* is the most common in English.

syllable: a speech sound having one vowel sound, with or without surrounding consonants, forming a part or the whole of a word. In English a syllable can normally be divided into two parts: the onset, which consists of the initial consonant or consonant blend, and the rime which consists of the vowel and any final consonants.

morpheme: The smallest meaningful grammatical unit of a language, that cannot be further divided (e.g. in the word *incoming*, *in*, *come*, and *ing* are morphemes. In the word *pins*, *pin* and the suffix *s* are morphemes. The word *pin* is a stand-alone morpheme, the *s* cannot stand alone.

Research has shown that:

- We do not read by recognizing the shape of whole words.
- Our visual system cannot avoid automatically carving up words into their elementary constituents.
- We read letters regardless of font, size, colour, lower or upper case.

six seven eight
six seven eight
six seven eight
six seven eight
six seven eight
six seven eight
SIX SEVEN EIGHT

It is not hard to DeCoDE, At An EsSeNtIaLy NoRmAl SpEed, EnTiRe SeNtEnCes WhOsE LeTtErS HaVe BeEn PrInTeD AlTernAtElY iN uPpErCaSe aNd In LoWeRcAsE.

[Adapated from Dehaene, 2009]

- It takes each string of letters apart and recomposes it into a hierarchy of letters, **bigrams** (pairs of letters, e.g. ea), **syllables** and **morphemes** (smallest meaningful grammatical unit of a language).

We have little difficulty in raednig etnrie sneetnecs in wihch the ltteers of eervy wrod hvae been miexd up, ecxpet for the frsit and the last ltteers.

The neurons dealing with bigrams easily tolerate a spacing of one letter, or even two letters. However, as soon as the spacing exceeds two characters, your performance collapses: rapid reading becomes impossible. You find yourself in the shoes of a beginning reader – the bigram neurons in your letter box area have stopped responding.

[Adapted from Dehaene, 2009]

- We can decode and say words we do not know, e.g.

Ohazurike na Khensani a va nga jahangi. Rirhandzu ri fambelana na ku phatima ka tinyeleti, ku yimbelela ka swinyenyana na moya wa vusiku.

[Ohazurike and Khensani were not in a hurry. Love goes well with shining stars, singing birds and a night breeze.]

How does the brain link the letters to the sounds they represent?

There is overwhelming scientific proof that we automatically link the letters to speech sounds when we read.

Once the brain has recognized the visual inputs of letters, they are processed in a so-called "letterbox" area in the occipital lobe. Then they are linked to an auditory processing centre in the temporal lobe which connects the letters (**graphemes**) to the sounds (**phonemes**) they represent. Together, these two regions of the brain take in written words and process them into a form we can then understand – spoken words, even if we don't say them out loud.

A phonetically regular **orthography** helps this decoding. For example, in England, 67 % of first grade readers make decoding errors, compared to 6 % Spanish, 3 % German and Greek, and 2 % Finnish children. African languages, because of their phonetically regular orthography, are easier to decode than English.

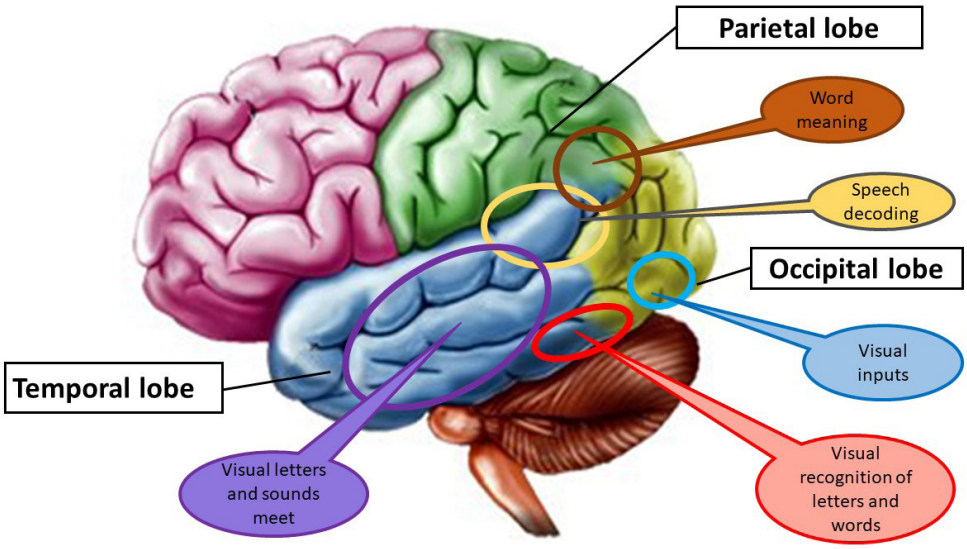
When the child is learning to read, this process is relatively slow. Initial decoding is a slow **serial** process, but gradually, the decoding becomes automatic – the printed word is now known.

The process becomes a **parallel** one, with immediate word recognition. A part of the brain is now used for storing written words (and does not respond to spoken speech).

How does the brain understand the meaning of the words?

Next the sound word is processed by a part of the parietal lobe of the brain which make sense of words that we know the meaning of and of the meaning of words combined into sentences.

The brain has now gone through the full process: letters are linked to phonemes > the is word sounded out > is recognized as a word known in the child's vocabulary > meaning is gained.



Adapted from: Dehaene, S. 2009. ***Reading in the brain***. New York: Penguin

grapheme: a written symbol that represents a sound (phoneme) and can be a single letter or a sequence of letters.

phoneme: the smallest unit of a speech sound that makes a difference in communication

orthography: the way in which letters are used to spell words in a written language. It includes the norms of spelling, hyphenation, capitalization, word breaks, emphasis, and punctuation.

serial: a process that happens in single steps, one after the other, along a single path

parallel: a process in which several things happen at the same time along several paths

Unit 3: Self test questions

1. List Frith's three stages of reading development:

2. Define the following words:

   grapheme:

   orthographic:

   bigram:

   syllable:

3. Distinguish between a consonant and a vowel and give examples of each.

4. What are the typical mental processes involved in cognition?

5. Name the three lobes of the brain involved in reading:

4. The processes of learning to read and write in literacy development in children

Though there are many ways of learning to read, there is a growing scientific consensus about what is an optimum process a child passes through to become a fluent reader.

Although there is a something of a sequence in this learning to read process, it needs to be understood that in practice, many of these things may happen simultaneously. Though one can talk of 'stages' in early reading development much of it is not a strictly step by step process.

Pre-literacy activities

The beginnings of reading come when children engage in pre-literacy activities. They hear stories read to them from books and develop a concept of print – books and other text forms – and gain a sense that texts are somehow important and meaningful and pleasurable. This is done largely through parents or teachers reading stories from books and from looking at picture books. They learn how to hold a book and turn pages and understand that, although they cannot actually read yet, that print is read from left to right and top to bottom, that printed words consist of letters and that spaces appear between words, and that print is often accompanied by pictures. This print awareness is a child's earliest introduction to literacy. At the same time the child may scribble "writing" as a visual imitation of printed text or of things a parent, caregiver or teacher has written. In a playschool or classroom the presence of print in its various forms can be reinforced through signs, labels, posters, calendars, and similar things.

Children with print awareness begin to understand that print has different functions depending on the context in which it appears, e.g. menus list food choices, a book tells a story, a sign can announce a favourite restaurant or warn of danger.

Gaining phonemic and phonological awareness

In this crucial stage children have to understand that there is a relationship between spoken language and the words and letters in written language.

First, the children develop **phonemic awareness** – understanding that there are separate sounds in words – and a broader **phonological awareness** that words are made up of sets, combinations of, individual sounds. Through various activities, many of which can double as play, children begin to understand the sound structure of spoken words. It is important to note that phonemic awareness is an auditory skill; children do not need to know letter shapes and their linked sounds (**phonics**) in order to develop basic phonemic awareness.

phonemic awareness: The awareness that enables a listener to hear and identify the separate sounds in a stream of speech (e.g. in English to identify the same sound in 'b**a**d', 's**a**d', gl**a**d' and 'm**a**d', and to distinguish between the sounds in 'b**e**d', 'b**a**d', 'b**u**d', and 'b**i**d'). Phonemic awareness relates only to speech sounds, not to alphabet letters or sound-spellings. Phonemic awareness is one component of a broader phonological awareness.

phonological awareness: Phonological awareness is an individual's awareness of the phonological structure, or sound structure, of words. Phonological awareness involves the detection and manipulation of sounds at various levels of sound structure: e.g. in English (1) syllables, (2) onsets and rimes, and (3) phonemes. It is a metalinguistic skill, requiring conscious awareness and reflection on the structure of language. Phonological awareness is a broad term that includes Phonemic awareness.

phonics: the system of sound-letter relationships used in reading and writing. Phonics requires learners to know and match letters or letter combinations with word sounds, learn the rules of spelling, and use this information to decode (read) and encode (write) words.

Learning the alphabetic principle

The next step is learning the **alphabetic principle** – that the individual sounds that they are now aware of in spoken language can be represented by letters of the alphabet. They learn that writing – print – represents these sounds, or phonemes. They have to develop the understanding that the letters on the page – the **m**, the **a**, and the **b** and so on – represent these units of sound.

When children reach this level of print and phonological awareness and have understood the alphabetic principle they are ready to learn to read. For some children, it is easy, for others, it is very difficult.

Doing phonics

The next stage is the phonics stage in which the children learn to know and match letters or letter combinations with word sounds, learn the rules of spelling, and use this information to decode (read) and encode (write) words.

Phonics plays an vitally important, though relatively brief, role in early reading development.

Children's growing knowledge of letter-sounds correspondence enables them to blend letters together into words, and as they begin to rapidly recognise word patterns they begin to read fluently, that is, at a good pace and accurately. These phonics skills enable children to decode words they have not seen before.

After extensive practice the process of reading becomes automatic. Known words can be recognized without conscious effort. The development of this **automaticity** now means that more attention can be devoted to meaning (comprehension) in the various simple texts they are able to read.

If children are taught reading in their home language systematically and explicitly (and at the same time motivated through pleasurable activities, hearing good books and gaining meaning from what they read) nearly all children (whatever their socio-economic background) should be able to read out loud at an acceptable level of **fluency** at the end of Grade 1 in the African languages (where the correspondence between sounds and letters is regular), but often after a somewhat longer period in English (because of spelling irregularities).

It is vital that all reading teachers understand that unless children can get to read fluently (that is not so slowly, labouriously and inefficiently that they do not have enough **working memory** to actually remember what they are reading), they will not comprehend what they read, much less relate the ideas to their background knowledge.

Learning to write

Usually at the same time that children are learning phonics they will be taught handwriting (or keyboarding) so that they can start to encode communication (the reverse process to decoding).

alphabetic principle: letters and combinations of letters are the symbols used to represent the speech sounds of a language based on systematic and predictable relationships between written letters and spoken words

decode: applying a knowledge of letter-sound relationships, including knowledge of letter patterns, to correctly sound-out and pronounce written words. In other words it is deciphering the alphabetic code into language. To **encode** is the reverse process of converting spoken words into written text

automaticity: the ability to recognise words instantly without having to sound them out or think about them

fluency: the ability to read a text accurately, quickly, and with meaningful expression. Fluency is the bridge between word recognition and comprehension (in which meaning is gained from what is read). Fluent readers can recognize a high percentage of words automatically.

working memory: part of short-term memory which temporarily stores and processes items vital for day-to-day tasks (e.g. following instructions, responding in conversations, listening and reading comprehension, organisation).

Children need to be taught how to hold a pencil or pen efficiently and how to shape the letters in an effective way. There are various handwriting scripts suitable for the early grades.

Comprehension

The final 'stage' is that of comprehension (though of course various degrees of comprehension have been developing all along – and indeed must be so for learning to read activities to be meaningful). This is, of course, the main purpose of reading – the understanding and interpretation of what is read.

Reading comprehension is the ability to read text, process it, and understand its meaning. Therefore, to be able to accurately understand written material, children need to be able to (1) decode what they read; (2) make connections between what they read and what they already know; and (3) think deeply about what they have read.

Good general knowledge or background knowledge is also important in making texts comprehensible, meaningful and interesting.

Comprehension is a complex matter and it can be argued that it is a lifelong process that includes (once the automaticity of decoding is established), learning how to make sense of ever more complex texts.

To comprehend learners need the required vocabulary and background knowledge, the ability to recognise sequences and to categorise information, distinguish between **literal** meanings and **metaphoric** or **ironic** ones in texts, know how to make **deductions** and **inferences** that can be made from texts, understand **text types** and **genres** and purposes of texts, as well as the ability to think critically about what they are reading.

Real attention has to be given to teaching comprehension (Pretorius and Murray, 2019). Teachers need to know how to teach comprehension skills and **scaffold** such development. It is not enough to simply assess meaningful reading, though of course the teacher's monitoring and assessment of meaningful reading is necessary.

Vocabulary enrichment

Comprehension requires a growing vocabulary of which only a small portion can actually be taught. This taught component will necessarily include all the high frequency words that occur in the texts used in the Foundation phase. There are lists of such words for the various languages.

The more academic vocabulary of school and subject learning also has to be developed. Academic words have to be progressively taught in the post-Foundation phases as they are needed for the understanding of textbooks and study reading.

However, most vocabulary must be learned through the child's own reading and strategies for learning the meaning of new words have to be taught to children (Pretorius and Murray, 2019, chapters 3 and 4).

literal: taking words in their primary sense as factual, truthful, exact, reliable

metaphoric: a word or phrase that ordinarily designates one thing is used to designate another, thus making an implicit comparison.

irony: expressing one's meaning by using language that normally signifies the opposite, typically for humorous or emphatic effect.

deduction: the process of reaching a decision or answer by thinking about the known facts or by thinking about a general truth and applying it to the particular situation

inference: making use of the information in a text to work out something that is not directly stated in that text – sometimes called "reading between the lines".

literal: taking words in their primary sense without metaphor or allegory as actual, factual, truthful

text types: are the different types of writing, broadly divided into factual and literary.

genre: The main genres in literature are Poetry, Drama, Fiction, Non-fiction and Media.

scaffold: an educational metaphor for the teacher providing successive levels of temporary support that help students reach higher levels of comprehension and skill acquisition.

The response to reading

Throughout the processes and stages of a child learning to read the child's response to reading is of most importance. The responses include pleasure, gaining of knowledge, and the power to communicate through effective writing. It is this affect side of learning to read is of great importance.

The importance of access to reading materials

It is difficult, if not impossible, to achieve reading fluency and good comprehension and an appropriate vocabulary without the child's personal access to reading material. You cannot learn to read without regular reading. To learn to read you have to read!

Unit 4: Self test questions

1. What are two very important pre-literacy activities?
2. Define:

   phonemic awareness:

   alphabetical principle:

   phonics:

   automaticity:

   fluency:
3. Explain the distinction between ***literal*** and ***metaphoric*** meanings of a text and show this in an example.
4. Name some genres in literature.
5. Choose the best description of ***comprehending text***:

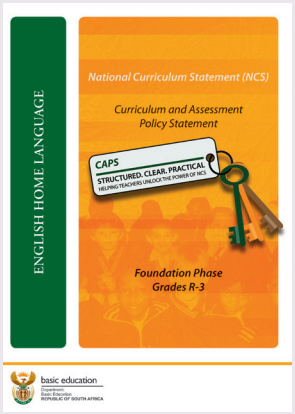
   Understanding text/ Memorising text/ Listening to text/ Decoding text
6. "Learning to read is as simple as riding a bicycle." Discuss this statement.
7. "If children read fluently but do not understand, they are not really reading." Discuss this statement.

5. A comprehensive reading programme

A comprehensive initial reading programme that a teacher implements in her classroom should be logically structured to develop all the components of reading and writing in a sensible sequence and progression (although of course in practice many things happen at more or less the same time).

Such a programme, whether developed by the teacher, or chosen from a range of available programmes supplied by the state or commercial publishers, should, as appropriate to the particular school grade level, cover all the components of reading and writing development. It should also be in general compliance with the coverage and outcomes specified in the ***Curriculum and Assessment Policy Statement*** (CAPS) from the Department of Basic Education.

If the school has a adopted a particular reading development programme, the teacher needs to check that it is genuinely comprehensive. Where necessary component gaps may need to be filled. The same applies to resources – readers, worksheets, workbooks, and so on. Are they available to ensure consolidation of the skills developed in each component of the programme?



The Big Five

There is general consensus that any initial reading development curriculum should include the so-called Big-Five:

- Phonemic Awareness
- Phonics/Alphabetic principle
- Vocabulary
- Fluency/Accuracy
- Comprehension.

Phonemic awareness, phonics and the alphabetical principle

An intial reading programme should explicitly teach about the sounds of language – that words can be broken up into these smaller units of language – and that the letters of the alphabet represent these units of language – phonics.

Note that "phonics" is only a component (though an essential one) of reading development. Phonics instruction should be integrated with other reading instruction in phonemic awareness, fluency, and comprehension strategies to create a complete reading programme.

Though some packaged reading development programmes may be described as phonics ones this usually this simply means that they take the phonics component seriously (as they should), not that there is nothing but phonics in the programme (which would be absurd).

Foundation Phase teachers need to include explicit instruction for beginning readers in becoming aware that spoken words are made up of smaller units of sounds, becoming familiar with letter-sound correspondences and common spelling conventions and their use in identifying printed words.

The programme should encourage the teaching of the full alphabetic code, not just a part of it, first and fast.

The sound-letter correspondences should be taught in a logical sequence based partly on what are the most frequent letters in commonly used words and also on the sequence followed in whatever primers, readers or Department of Basic Education workbooks are used in the school for the particular language.

Children who have begun to read independently (in Grade 2 and above) and develop automaticity in their reading, should be encouraged to continue to sound out new words in the texts that they read, recognizing words primarily through their letter-sound relationships. Although they can use illustrations and contextual clues in the text, they should not use them as a substitute for the information provided by the letters of the word. Children should be taught to handle unknown words by decoding them and never encouraged to guess a word's identity. [Though note that a few very high frequency English words with irregular spellings must be learned by sight.] Only the teaching of letter-to-sound conversion gives the freedom to read novel words in any domain.

The programme texts that the children have to read should be easily decodable.

Vocabulary

Though decoding is essential, vocabulary enrichment is equally important. Reading teachers also want to teach children about language and to build their vocabulary. They want them to have a knowledge base.

Children enter school knowing varying numbers of words. The beginnings of vocabulary development take place in the home and it is an unfortunate reality that children from linguistically advantaged environments enter school knowing two to four times as many words as other children. In South Africa most parents have never read to their children.

Parents talking with their children and telling them stories and reading stories to them builds up meaningful vocabulary. The programme for initial reading must ensure that there is regular reading of stories to children to enable them to understand how written stories work and to build up their vocabulary. Vocabulary must be meaningful to be learned.

The number of words used in everyday oral speech is about 400 to 600 words. Study in school requires many more than this and access to secondary education requires a vocabulary of about 20 000 words.

Hence a comprehensive reading instruction programme must make space for vocabulary building (including teaching about meaningful word parts (morphology)) even though explicit vocabulary instruction can only teach about 400 words a year. Most vocabulary development comes from the child's own reading (especially out of school).

Fluency

Fluency is the reading a connected text orally at good pace, accurately and with proper expression. It builds on decoding automaticity and vocabulary. It is not the same as simply reading fast.

It is hard to comprehend text if you read too slowly. The reason for this is that is you are decoding painfully slowly your short term memory cannot cope and you loose ther sense of the words that you have decided earlier. Fluency is thus essential for comprehension

Oral reading fluency must be developed and regularly practised in reading interesting books at an appropriate level. There are various guidelines and **rubrics** for assessing oral reading fluency (ORF). A comprehensive programme should have space for checking ORF on a regular basis.

oral reading fluency: the ability to read unfamiliar text aloud with sufficient speed, automaticity, and accuracy and with proper expression. It is one of the critical components required for successful reading comprehension. Unless learners have ORF they are less able to be able to focus on the meaning of the text.

rubric: a scoring guide or set of achievement criteria across all the components of any kind of student work

Comprehension

Reading comprehension, the understanding of the meaning of texts and integrating that with what the reader already knows, is the end product of the reading process. It is the result of the interaction of two sets of activities: word recognition and language comprehension. Decoding and vocabulary enable word recognition, language comprehension enables the reader to construct the overall meaning of the text using the clues and cues provided by the word recognition. Reading is thus more than sounding out the printed letters in a text and more than knowing the meanings of individual words in a text. It also requires the readers' capacity to use their background knowledge and powers of reason to make sense of what they read.

The ability to comprehend the meaning of texts develops along a continuum that is in effect lifelong, as our vocabulary grows and our background knowledge also expands. Much of this growth cannot be formally taught (for example, there is simply not enough time for a large vocabulary to be taught – it can only grow through the individual's independent reading). However, as with vocabulary, what can be taught are effective strategies, methods and techniques that the individual reader can then use to comprehend texts

Any comprehensive reading programme should include real attention being given to teaching comprehension (not just the assessment of meaningful reading but also to the development of comprehension. Means of monitoring comprehension are necessary. From the earliest grades the teacher's instruction should build comprehension skills, provide guidance on comprehension strategies such as identifying the main idea, summarizing, predicting events and outcomes of upcoming text, drawing inferences, and monitoring for coherence and misunderstandings.

Writing

As soon as children learn some letters they should be encouraged to write them, to use them to begin writing words, and to use words to begin writing sentences. Writing should take place frequently so that learners become fully

cursive: writing joined together in a flowing manner, generally for the purpose of making writing faster, in contrast to block letters

accustomed to it. The programme should make use of a suitable print script that is designed in such a way that it readily transforms into a **cursive** script. Correct spelling should be developed through explicit instruction and practice. The programme should have a suitable grade linked list of spellings to be taught.

Reading to read

Because you cannot learn to read without reading there should be daily group and independent reading of texts of interest to the child and at the appropriate level of difficulty and challenge. In all grades, independent reading outside school should be encouraged through daily homework assignments. Given that most vocabulary development comes through independent reading this is vital for reading development.

Both the classroom and the school should be literacy rich environments with reading corners and libraries where children can engage in reading activities with enjoyment. Unless the programme has ample suitable age and grade level texts for children to read there is a severe problem. One has to read to learn how to read!

Unit 5: Self test questions

1. What are the commonly called "big five" components of the teaching of reading?

2. A systematic approach to reading focuses initially on which of these:

   Comprehension skills/ Decoding skills/ Memorising words/ Handwriting

3. List the components you would include in a structured initial learning to read and write programme:

4. "There is no relationship between reading speed and comprehension." Discuss the validity of this statement.

5. Use the internet to find a list of high frequency words suitable for Grade One.

6. Enabling conditions for literacy

There are enabling conditions that will help the children to become fluent readers. Some of these conditions apply to the home literacy environment and more broadly to the community environment. Other enabling conditions need to be present or be created in the classroom.

One of the most important aspects of a programme of learning to read and write is that pays attention to **affective** side of learning to read and write. The child's emotional engagement and motivations are particularly important, especially when reading fluency is still to be developed.

affect: in psychology, refers to the underlying experience of feeling, emotion or mood. So **affective** describes something that is influenced by emotions, is a result of emotions, or expresses emotion.

The home environment

Teachers have to take into account the home literacy environment and the crucial role that exposure to and the practice of reading has on literacy development. Poverty – coming from a lower socio-economic status household or community – is a major barrier to becoming a fluent reader.

Some children engage in pre-literacy activities in the home or pre-school and gain a kind of "emergent literacy" indirectly from their parents and pre-school activities. Children whose parents talk with them a lot and who read to them and have books in the home for the them, have an obvious advantage in both vocabulary development and in familiarity with printed texts. Poverty – coming from a lower socio-economic status household or community – is a major barrier to becoming a fluent reader.

The stronger this pre-literacy foundation is, the easier children find it to learn to read and write once they enter formal school. Alphabetic knowledge gained in the home or in pre-school is the single best predictor of later reading success.

Once the child starts formal school the extent to which the parents can back up reading development is also important – continuing to read stories to the children at home and checking the reading homework.

The classroom environment

A reading and writing conducive environment will encourage children to read. Children in primary school need to be in physical and psychological proximity to books and other texts – in the classrooms and, ideally in their homes as well – that, is, in environments that are literacy friendly and encourage them to read and write.

If the children's first experiences of literacy learning is in their home language that is also an obvious advantage.

Children have to be engaged in the process of learning to read with engaging and pleasurable activities. Literacy teachers must recognise the importance of

the early strengthening of motivation to read. Therefore they must encourage the building of perceptions that reading is important, interesting and pleasurable.

There are a variety of factors that can influence the motivation of children to engage with reading and writing:

Interests

If children are interested in what they are reading or having read to them or what they are writing about they are likely to be well motivated. This puts pressure on the teacher to carefully select the reading materials and the topics and themes being pursued. The more knowledgeable the child is about a particular area of knowledge, the more likely he or she is to want to read more on that area. A child may be more interested in some genres than others.

Attitudes

Some reading research suggests that positive attitudes to reading (both for recreational and academic purposes) often decline as children pass through the grades, though girls have a generally more positive attitude to reading. The less able a reader is, the more drastic the decline in attitude to recreational reading. This suggests that getting learners reading fluently as soon as possible is of the greatest importance. Attitudes will also be influenced by the general culture in the environment.

Involvement

If children can get really involved with reading, if they are really engaged in reading and spend time on it, their motivation to continue will increase. The teacher needs to create opportunities where the children have enough time to get really absorbed in what they are doing. Child involving activities and play are especially important in the early grades. Thus, for example, if children know that they are going to draw a picture based on a story or act it out, they are often more involved in the text.

Self-efficacy and self-confidence

Children who believe that they can do things (such as handle difficult words and passages in texts) are going to be better motivated than those who doubt their own abilities. It is important for teachers to help young children gain a sense of accomplishment by the careful choice of appropriate texts and reading challenges. This is particularly important in encouraging reading in children from poor literacy environments. The teacher has the task of building the learner's belief in his or her ability to read and that it is worth their effort and perseverance to do practice reading.

Sense of control and choice

Children's own sense of being in control of what they do and of the choices they make, is important in building up independent readers. Choice is also highly correlated with interest – we are more interested in what we ourselves choose. Teachers, can, wherever possible, encourage children to make choices about what they read and write.

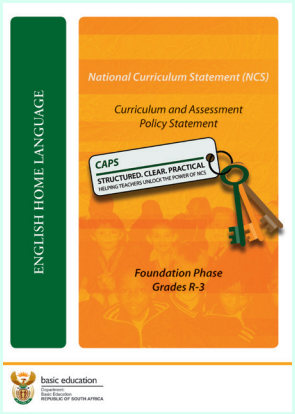
Being knowledgeable

Recognizing that being knowledgeable is a good thing – and that it will help one achieve in school – is a strong motivator, particularly when the focus on reading and writing in the higher grades is no longer learning to read but rather reading (and writing) to learn. Teachers need to show children the ways of using information texts for mathematics and life skills in the Foundation Phase and all the various subjects in the Intermediate and later phases.

Teachers as role models

It is very important that teachers read to children (with expression and enjoyment) and also demonstrate that they themselves read for information and pleasure. Teachers need to model for children literate ways of behaving and participating in literate communities. The lack of role models who read and get pleasure they get from reading is a major barrier in our contemporary culture.

It is also important that teachers make explicit to learners the purpose and functions of what is being taught, i.e. why they are working hard at reading and writing.



Reading to children

In the early grades this is best done by providing opportunities for learners to listen to and read and respond with enjoyment to a variety of interesting, engaging, social justice informing, and conceptually rich texts.

Enjoyable and fun activities like drawing and acting out books or dramatising them all play a role.

The ***Curriculum and Assessment Policy Statement*** (CAPS) outlines various forms of reading activities, including :

Shared reading involves the teacher holding an enlarged size text (a "big book") and reading and taking the class of children through this text in several sessions over days.

Group Guided reading has children reading aloud (or silently) from an appropriate level book in a guided reading group with teacher i.e. the whole group reads the same story.

Paired reading is done by children sitting in pairs to read together or take turns in reading an easy text.

Access to books in a literacy rich environment

Because reading and vocabulary development are highly dependent on reading actual texts, effective literacy learning depends on the availability of appropriate resources, which must include ample supplies of attractive reading texts (and may include digital texts) and simple writing materials. Children in primary school need to be in physical and psychological proximity to books and other texts – in the classrooms and, ideally in their homes as well – that, is, in environments that are literacy friendly and encourage them to read and write.

Unit 6: Self test questions

1. How would you deal with the problem of differences in the number of words known by children in the classroom?
2. How would you encourage children to like reading?
3. Describe the changes you would make to a bare classroom in which Foundation level learners would be taught literacy.
4. Match the type of reading to the correct definition:
   1. Shared reading: [a, b or c] ____
   2. Group guided reading: [a, b, or c] ____
   3. Paired reading: [a,b, or c] ____

   a. Children read aloud or silently from a book in a group led by the teacher. All the children read the same book/story.

   b. A big book is held by the teacher who reads the book to the children and takes them through the book in several sessions over some days.

   c. Children read together or take turns in reading the text.
5. List and describe some of the main contextual factors that influence successful learning to read.

7. Expectations and assessment

The average three-year-old has heard 20 million words spoken. If from a very socially interactive family, a child may have heard 35 million words. Three-year-olds of uncommunicative families may have heard less than 10 million words. From this exposure to spoken language this same average child probably has a vocabulary of about 700 words, children of very sociable families have a vocabulary of about 1 100 words, and the children of uncommunicative families have a smaller about 500 words vocabulary. Children who attend effective pre-schools also have an advantage in such things as enlarging their vocabulary and developing phonemic awareness.

It is from this variable starting point that the teacher has to develop reading development and monitor the progress of the children towards the goal – that the children should become fluent readers of texts appropriate for that level.

Expectations

There is a broad international consensus that with correct teaching and adequate resources Foundation Phase school classes should have practically no illiterate learners, and at least 80% of learners should learn to decode. By the end of Grade 2, learners should be reading 45-60 words per minute in order to be able to learn from printed materials. By Grade 3 the children should be fluent readers of texts appropriate for that level.

The downside of not achieving the steps towards this goal is catastrophic:

- Children who are poor readers at the end of first grade almost never catch up to their peers by the end of primary school.
- Weak readers avoid reading, which prevents their growth in vocabulary and fluency.

The international research evidence is that by the end of the third grade all normal healthy children should be fluent readers of texts appropriate for this level and gain some enjoyment from reading. This is an expectation that applies both to the learners and to the quality of teaching and the presence of reading resources that enables this progress.

Assessment of reading

As in all learning, assessment and the feedback from assessment are necessary. All literacy teachers should have knowledge and practice in the use of reading baseline assessment tools and assessment instruments for all the components of reading.

The general purposes of assessment are to find out what learners know (or do not know) and can (or cannot) do at a specific point in time. Assessment can be **formative** or **summative**. Regular formative assessment is vital in reading and writing development.

formative assessment: used to monitor learner progress during a course of instruction and to provide ongoing feedback that can help learners identify their strengths and weaknesses and target areas that need work.

summative assessment: used to test learner achievement at the end a period of instruction, e.g. end of year examinations

norm: the average level or standard of achievement or performance of a group of learners

benchmark: a standard by which something can be measured or judged

indicator: a marker of change or continuity which enable us to measure the progress of the learners in relation to a specific target

Apart from the general usefulness of assessment in tracking individual learners' progress over time and seeing whether they are achieving **norms** and **benchmarks**, it is particularly important in the early school grades as remediation of literacy learning difficulties is less effective after Grade 2.

In order to assess reading effectively, teachers should have a good understanding of the phases of reading development and what is expected in terms of reading and vocabulary in the different grades of the primary school, and particularly in the Foundation Phase.

The teacher should know what learners need to be able to read and write within and across the relevant grades and subjects. In other words, the teacher should know what the **indicators** are for each phase (and of course be able to differentiate between what has been done in teaching (covering the CAPS or other curriculum) and actual learning (what the child actually learns (knows and can do)). Teachers should also understand that individual children move through the phases at different paces and that benchmarks need to be used flexibly for the particular grade and language.

It should be recognised that much necessary reading assessment in the early grades can only be done on a one-to-one basis, however administratively difficult it is in large classes. Group guided reading provides the main opportunity for teachers to hear each child read individually, to assess progress informally and to provide feedback. Feedback is vital if children are to make progress in their reading. Teachers should hear every child read at least once a week and they should keep individual records of children's progress.

Assessing the different components of reading

Teachers should be able to quickly and accurately assess where children are in their reading development and plan instruction accordingly, deciding on when the various components of reading and writing receive an assessment focus. Although literacy learning has many discrete components, in daily classroom practice many of the components are active or are being addressed simultaneously.

Among the things that can and should be assessed are:

- Oral language development/ Listening comprehension
- Concepts of print
- Phonological awareness (important in Grade R and Term 1 of Grade 1)
- Phonemic awareness (important in Grade 1)/Phoneme segmentation
- Alphabetic knowledge/Letter recognition
- Decoding (Phonics)
- Vocabulary /Spelling
- Fluency
- Comprehension (at many levels and degrees of complexity)

Many of these assessments require the use of texts and teachers should be aware of the dangers of relying on whole-class oral repetition rather than text-based work.

Many tests, checklists and benchmarks are available for most of these components in English, fewer in the African languages.

As with all assessment, it must be conducted as accurately as possible, there must be systematic analysis and recording of results, and where appropriate, rapid feedback to the individual learners.

Teachers need to know how to respond to the results of assessment. Thus:

- **Screening assessments** (such as **reading readiness** and **baseline assessments**) serve the purpose of finding out where the learners are and require placements of learner in appropriate groups or special attention to particular problems revealed by the screening.
- **Diagnostic assessment**s (used to assess specific skills or components of reading such as phonemic awareness, phonics skills, and fluency) often require individual, one-to-one attention, and, as is really the case for all assessment, as speedily as possible.
- **Norm**, **criterion**, **outcome** and **progress monitoring** assessment give guidance on whether the pace and quality of the instruction is working and often require re-looking at instructional content and sequencing.

Remediation

Human beings have great diversity in the way their brains function with individuals being better or poorer at doing some things than others. Though this diversity helps groups of people as a whole, in certain cases some individuals are simply less able at learning to read fluently. Boys are far more than twice as likely as girls to have reading problems. However, with proper instruction most healthy children can be taught to read.

The most common early reading difficulties are in phonemic awareness and **phonological processing**. Such children find it difficult to link oral language to words in print. They find decoding difficult and read very slowly and labouriously with little comprehension.

Physical problems in hearing or eyesight will cause reading problems. It is important for teachers to identify learner who have hearing or seeing problems.

The problem with most reading difficulties is that they hamper practice in and the motivation to read. This is why it is so important that they be identified early (through assessment) and dealt with immediately. This is crucial as children who get off to a poor start seldom catch up.

In some cases reading difficulties can be addressed in the classroom by the teacher, or through spending some extra time after classes are ended. In other cases there should be referrals to specialist services.

screening assessment: quick tests used at the beginning of a programme to identify where learners are and to identify those at risk for reading difficulties

reading readiness: the enabling capacities a child needs to be ready to formally learn to read and write

baseline assessment: used to assess a learner's knowledge or skill prior to instruction.

diagnostic assessment: measures what learners know and can do and can identify gaps and weaknesess

norm based assessment: compares the learner's skills to a defined population (of the same age or grade) used in standardizing the test

criterion based assessment: compares the learner's skills to a defined set of skills and a goal (criterion) for mastery

outcome based assessment: tests that measure against specified grade level expectations

progress monitoring assessment: measures a learner's overall progress during the school year or progress toward acquiring specific skills that have been taught

phonological processing: the use of the sounds of one's language (i.e., phonemes) to process spoken and written language

Unit 7: Self test questions

1. The average number of words a three-year old child knows ranges from about:

   10 to 20 million / 500 to 1 100 / 5 000 to 15 000

2. At the end of Grade 2 a child should be able to read at least about:

   10 to 50 words per minute / 45 to 60 wpm/ 70 to 120 wpm

3. Distinguish between formative and summative assessment.

4. How would you assess oral language development in a class?

5. How would you assess the understanding of the concept of print in a class?

   Observe how they handled a book given to them and what they would do if they were instructed to look at it and turn pages or go to the front or back of the book. At higher grade levels they would be asked to identify different parts of the book and their purpose.

6. Print awareness typically, but not always, begins to develop:

   before children begin school/ at the end of first grade/ during the child's second year of schooling/ none of the above – children are born with print awareness

7. Which of the following is NOT an example of print awareness?

   A child indicates that print proceeds from top to bottom on a page/ a child indicates that print proceeds from left to right on a page/ a child indicates that she can sing an alphabet song/ a child indicates that you should start reading a book from the front

8. A child who writes from top to bottom and from left to right possesses:

   legible handwriting/ print awareness/ number awareness/ none of the above

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Self test answers

Unit 1: The definition and meaning of literacy

1. **Produce definitions giving your understanding of the terms 'literacy' and 'literacies'**

   Literacy is "the ability to read and write". This definition can be expanded to the ability to read and write in a range of contexts and using cultural knowledge which enables a speaker, writer or reader to recognise and use language appropriate to different social situations.

   The term **literacies** expands the meaning of literacy to include such various abilities as understanding or using visual images, computers, the internet and other technology, and other basic means to understand, communicate, gain useful knowledge, and use the dominant symbol systems of a culture.

2. **Fill in the missing technical terms:**

   auditory – having to do with hearing

   visual – having to do with seeing

   spatial – having to do with position in space

   oral – having to do with speaking

   tactile – having to do with touch

   multi-modal – the same thing taking many different forms or varieties

3. **Define "encoding" in the context of reading and writing.**

   Encoding is the process of putting spoken words into the written alphabetic code through the application of a knowledge of letter-sound relationships, including knowledge of letter patterns, to correctly convert spoken words into written ones.

4. **What is "visual literacy"?**

   Understanding visual communications, including the ability to process and represent knowledge through images.

5. **Give examples of reading and writing as meaningful communication.**

   E.g. Understanding the content and message of a personal letter or email.
   Being able to follow a set of written instructions.
   Writing an account of one of your own experiences for your friends.
   Commenting on Twitter about a political statement you disagree with.

6. **Is literacy a right in South Africa?**

   Yes. The South African constitution (in section 29) includes the right for all, including adults, to a basic education, which includes literacy and numeracy.

Unit 2: The relationship between language and literacy

1. Distinguish between a *phoneme* and a *morpheme* and give an example of each.

A **phoneme** is sound unit – the smallest speech sound that makes a difference in spoken communication, e.g. the sounds h, a, and t in the word "hat".

A **morpheme** is a grammatical unit – the smallest grammatical unit in a language, e.g. in the word "incoming", "in", "come" and "ing" are morphemes, in the word "masifunde", "ma", "si", and "funde" are morphemes.

2. Distinguish between a *consonant* and a *vowel* and give examples of each.

A **consonant** is a speech sound in which the air is at least partly blocked by the position of the tongue, teeth or lips. The majority of letters in the alphabet represent the sounds of consonants, e.g. b, d, f, g.

A **vowel** is a speech sound produced when the breath flows out through the open mouth without being blocked by the teeth, tongue, or lips. There are long and short vowels, e.g. a, e, i, o, u.

3. What is the technical term used to describe:

the organization of sounds in a language and how and when certain sounds can be combined – **phonology**

the structure of words and parts of words, how they are formed, and their relationship to other words in the language – **morphology**

the study of meaning at the levels of words, phases, sentences and narratives in language – **semantics**

the rules about the arrangement and order of words and phrases to create well-formed sentences in a language – **syntax**

the complete set of rules about the structure of a language and therefore of what are acceptable sentences – **grammar**

the study of meaning at the levels of words, phases, sentences and narratives in language – **semantics**

the ways in which context contributes to meaning in language – **pragmatics**

4. What is an *affix*?.

An **affix** is a morpheme that is added to the base form or stem or root of a word and modifies its meaning. A prefix appears at the front of a word, an infix inside the word and a suffix at the end of a word.

5. Give an example each of an irregular noun and verb in English.

Examples:

Most plural nouns add an s to the end of the noun, e.g. dog – dogs
An irregular plural noun is, e.g. **man – men** (not mans)
Most verbs add an ed in the past tense, e.g. jump – jumped
An irregular past tense verb is, e.g. **run – ran** (not runed)

Unit 2: The relationship between language and literacy (continued)

6. Define the following words or phrases:

intonation: This is the pattern or melody in speech that helps indicate the attitudes and emotions of the speaker. Intonation is primarily a matter the rise of fall of the voice in speaking.

tone: This is a rise of fall in the pitch level of the voice saying a word that indicates a difference in the meaning of the word.

stress: This is the degree of emphasis given a sound or syllable in speech or to certain words in a phrase or sentence.

agglutinative language: A language in which several morphemes are added to a noun or verb to denote case, number, gender, person, tense, etc.

7. Distinguish between a *consonant* and a *vowel* and give examples of each.

consonant: a speech sound in which the air is at least partly blocked by the position of the tongue, teeth or lips. The majority of letters in the alphabet represent consonants.

vowel: a speech sound produced when the breath flows out through the open mouth without being blocked by the teeth, tongue, or lips. There are long and short vowels.

8. Is learning to read a natural acquisition like learning to speak?

No. It is obvious that normal young children easily learn the language they are exposed to without being taught. By contrast the way in which written texts have to be decoded depends on children being taught that the symbols used in writing represent the sounds within the words of speech and that they become fluent through practice in decoding and comprehending text.

Unit 3: How does the brain read?

1. **List Frith's three stages of reading development:**

   pictorial (or logographic)

   phonological

   orthographic

2. **Define the following words:**

   grapheme: a written symbol that represents a sound (phoneme) and can be a single letter or a sequence of letters.

   orthographic: relating to the right conventional spelling of a written language in which letters are combined to represent sounds and words.

   bigram: a sequence of two adjacent letters

   syllable: a speech sound having one vowel sound, with or without surrounding consonants

3. **Distinguish between a *consonant* and a *vowel* and give examples of each.**

   consonant: a speech sound in which the air is at least partly blocked by the position of the tongue, teeth or lips. The majority of letters in the alphabet represent consonants.

   vowel: a speech sound produced when the breath flows out through the open mouth without being blocked by the teeth, tongue, or lips. There are long and short vowels.

4. **What are the typical mental processes involved in cognition?**

   Thinking, knowing, remembering, judging, problem-solving

5. **Name the three lobes of the brain involved in reading:**

   Occipital

   Temporal

   Parietal

Unit 4: How does the brain read?

1. **What are two very important pre-literacy activities?**

   To listen to read stories and gaining meaning and pleasure from this

   To develop a concept of print and being able to turn pages and understand how text in books is orientated (front to back, top to bottom, left to right).

2. **Define:**

   phonemic awareness: the awareness that enables a listener to hear and identify the separate sounds in a stream of speech. It relates only to speech sounds, not to alphabet letters or sound-spellings.

   alphabetical principle: that letters and combinations of letters are the symbols used to represent the speech sounds of a language based on systematic and predictable relationships between written letters and spoken words

   phonics: the system of linking letter shapes to sounds so that text may be decoded and encoded in writing

   automaticity: the ability to recognise words instantly without having to sound them out or think about them

   fluency: the ability to read a text accurately, quickly, and with meaningful expression.

3. **Explain the distinction between *literal* and *metaphoric* meanings of a text and show this in an example.**

   With a **literal** meaning the words in a text are taken in their plain sense as factual and true, with **metaphors** the meaning of the words or phrases are not literal but designate something else.

   Literal: He was a very brave man in the fight.

   Metaphoric: He was a lion in the fight.

4. **Name some genres in literature.**

   Poetry, drama, fiction, non-fiction, media.

5. **Choose the best description of *comprehending text:***

   Understanding text/ ~~Memorising text/ Listening to text/ Decoding text~~

6. **"Learning to read is as simple as riding a bicycle." Discuss this statement.**

   Usually a person learning to ride a bicycle struggles for a very short time to learn how to balance (an hour or two at most)and then can ride easily thereafter. With reading the process is much longer and different components have to be developed over time, including fluency, and developing an enlarged vocabulary and deeper comprehension.

7. **"If children read fluently but do not understand, they are not really reading." Discuss this statement.**

   The statement is correct in that the purpose of reading is the comprehension, the understanding, of the message communicated through the text. This is not to say that reading fluently is not an important aid to comprehension.

Unit 5: A comprehensive reading programme

1. **What are the commonly called "big five" components of the teaching of reading?**

   Phonemic Awareness

   Phonics/Alphabetic principle

   Vocabulary

   Fluency/Accuracy

   Comprehension

2. **A systematic approach to reading focuses initially on which of these:**

   ~~Comprehension skills~~/ Decoding skills/ ~~Memorising words/ Handwriting~~

3. **List the components you would include in a structured initial learning to read and write programme:**

   Pre-literacy activities - print awareness

   Phonemic awareness – teaching about the sounds in the language

   Alphabetical principle – teaching the alphabetic code

   Vocabulary development

   Fluency practice

   Comprehension practice

   Writing – handwriting and text construction

   Reading to read – lots of practice

4. **"There is no relationship between reading speed and comprehension." Discuss the validity of this statement.**

   There is a relationship but it is not simple. Unless one can read fast enough one's short term memory cannot cope and one then fails to comprehend what you have read. However just reading faster and faster is pointless and one has to adjust the speed depending on the difficuty of the text.

5. **Use the internet to find a list of high frequency words suitable for Grade 1.**

   There are many such English lists available for various grades. Those for other languages may be more difficult to find.

Unit 6: The enabling conditions for literacy

1. **How would you deal with the problem of differences in the number of words known by children in the classroom?**

   First through suitable individual testing find out vocabulary levels.

   Introduce and teach the use of high frequency words and key subject related words.

2. **How would you encourage children to like reading?**

   Tell them why reading is important.
   Read to them regularly
   Provide interesting reading materials thatb they can choose to read.
   Show that they can get knowledge from reading.
   Etc.

3. **Describe the changes you would make to a bare classroom in which Foundation level learners would be taught literacy.**

   Provide ample supplies of reading materials in a reading corner
   Lots of posters, alphabet charts, word walls, etc.

4. **Match the type of reading to the correct definition:**

   1. Shared reading: [a, b or c] **b.** A big book is held by the teacher who reads the book to the children and takes them through the book in several sessions over some days.

   2. Group guided reading: [a, b, or c] **a.** Children read aloud or silently from a book in a group led by the teacher. All the children read the same book/story.

   3. Paired reading: [a,b, or c] **c.** Children read together or take turns in reading the text.

5. **List and describe some of the main contextual factors that influence successful learning to read.**

   The home literacy environment

   Poverty (which influences the home and community literacy environment)

   Parental support for reading developoment once children are in school

   Learning to read in the language the child knows

   Pleasurable reading activities

   Interesting reading material available

   Recognition of the value of reading

   Positive role models in teachers who read

Unit 7: Expectations and assessment

1. **The average number of words a three-year old child knows ranges from about:**

   ~~10 to 20 million~~ / 500 to 1 100 / ~~5 000 to 15 000~~

2. **At the end of Grade 2 a child should be able to read at least about:**

   ~~10 to 50 words per minute~~ / 45 to 60 wpm/ ~~70 to 120 wpm~~

3. **Distinguish between formative and summative assessment.**

   Formative assessment is used to monitor and guide the learners' progress by identifying strengths and weaknesses and areas for further work.

   Summative assessment tests learners' final achievement at the end of some period of instruction.

4. **How would you assess oral language development in a class?**

   I would have to listen to the each child speaking in conversations and in giving a talk. I would ask them to explain the meaning of high frequency words.

5. **How would you assess the understanding of the concept of print in a class?**

   Observe how they handled a book given to them and what they would do if they were instructed to look at it and turn pages or go to the front or back of the book. At higher grade levels they would be asked to identify different parts of the book and their purpose.

6. **Print awareness typically, but not always, begins to develop:**

   before children begin school/ ~~at the end of first grade~~/ ~~during the child's second year of schooling~~/ ~~none of the above – children are born with print awareness~~

7. **Which of the following is NOT an example of print awareness?**

   a child indicates that print proceeds from top to bottom on a page/ a child indicates that print proceeds from left to right on a page/ ~~a child indicates that she can sing an alphabet song~~/ a child indicates that you should start reading a book from the front

8. **A child who writes from top to bottom and from left to right possesses:**

   ~~legible handwriting~~/ print awareness/ ~~number awareness~~/ ~~none of the above~~

PrimTEd Teaching Reading Study Guides

Study guide 1: Introduction to teaching reading

This is an short introductory overview of the teaching of reading. It introduces some of the terminology and key concepts associated with literacy and the teaching of reading. Outlines are provided of the the key processes in learning to read and of the necessary components of effective reading instruction programmes. It includes short self-tests for each unit in the Guide.

As an introductory overview it does **not** provide specific instruction on the techniques used in teaching reading and writing, whether for home language or in a first additional language.

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