

EARLY LEARNING ESSENTIALS 2: LANGUAGE DEVELOPMENT AND CONCEPT FORMATION



The contents of this Section are as follows-

Introduction

Acquisition and Development of Language

- Aural language development
- Oral language development

Activities to Develop Language Skills

Intellectual Skills: Learning of Concepts

Concepts: Definition and Attributes

Teaching Concepts

Some Relevant Research

Some Suggested Activities for Teaching Concepts

- Concept attainment: A strategy
- Some general activities

Some Important Early Concepts: Literacy

- Handwriting
- Reading
- Spelling
- Written Expression

Some Important Early Concepts: Numeracy

- Relational
- Quantity
- Number and place value
- Fractions
- Chance
- Money
- Measurement
- Location and transformation
- Data representation and interpretation

Some Important Early Concepts: Self/Social Awareness

Resources

- Tests/Programs
- Links
- Computer software

References

INTRODUCTION

This is the second Section devoted to the abilities and competencies considered essential in the acquisition and development of early learning skills.

It is assumed that language plays a central role in the development of concepts important in learning and hence the development of language abilities will be a key focus in this Section.

This Section will explore the development of language, focussing on aural and oral vocabulary skills. As the focus is on early learning essentials, the period of investigation will commence with the very young, pre-school child and continue through to the early primary school years. Essentially, the period begins at conception and extends to age 8 years which is the internationally recognised period of early childhood development. For school aged children, the relevant curriculum stages are VELs and AusVELs Levels- Foundation to Level 3.

Through this period, the close association between vocabulary development and concept formation will be highlighted. The aim will be to identify those concepts that are considered essential in early learning.

The Section- **Early Learning Essentials 1: Directionality**, gives details of the concepts specifically relevant to directionality. The reader is advised to consult this Section to gain a comprehensive coverage of many of the essential early learning concepts in this area.

The Section-**Mathematics**- identifies relevant words and concepts with an emphasis on those concepts specific relevant to directionality. The reader should study the Mathematics Section to complement the material provided in the current Section on **Early Learning Essentials 2: Language Development and Concept Formation**.

In this Section, a broader approach will be attempted so that the words and concepts relevant to literacy learning (handwriting, reading, spelling, written expression) and numeracy learning will be explored. Of course, many of these concepts will be relevant for early learning across the curriculum and also for learning beyond the early years.

Words and concepts for Literacy and Numeracy have been drawn from several sources including VELs and the AusVELs. While the VELs has now been archived (2013), relevant vocabulary and concepts have been retained.

Specifically, this Section will aim to cover the following-

- development of aural language (listening and understanding)
- development of oral language (spoken language)
- formation of key concepts for early learning

ACQUISITION AND DEVELOPMENT OF LANGUAGE

The Section on **Reading** gives details about the acquisition and development of language skills considered to be important prerequisites for reading and hence cross reference to relevant information in this Section will be provided.

In understanding the acquisition and development of literacy skills, it is important to be aware of the normal development of language and literacy skills. The following developmental hierarchy (Myklebust, 1964) identifies the critical areas of expected oral and written language development-top down.

EARLY EXPERIENCES

LISTENING

SPEAKING

READING

SPELLING AND WRITTEN EXPRESSION

The early experiences of the child provide the basis for language acquisition and development. The infant is immersed in the spoken language of his/her family and begins to associate people, places, objects, events, needs and wants with spoken words. These experiences form the foundations for the development of primary language.

Listening, or the comprehension of spoken language, is a necessary prerequisite for speaking or oral language. The input and understanding of aural language precedes the output of oral language. Normally during this stage of development, the child's vocabulary is expanding rapidly and an awareness and ability to manipulate speech sounds (phonological skills) are established.

Following these early stages of primary language development (listening and speaking), the child is introduced to symbolic, secondary language (reading, spelling and written expression). While print is usually present in the child's early environment, and the child is encouraged to take an interest in it, a formal focus on symbolic language is introduced at school.

Again, input (reading) precedes output (spelling and written expression).

Primary language continues to develop as secondary language is acquired, and through reciprocal interaction, more mature and refined communication gradually evolves.

For some children, difficulties are experienced that arrest or delay the acquisition or development of language at one or more of these stages. Difficulties at the early stages usually affect later stages of development. For instance, problems

with listening often influence speech, reading and spelling, while reading difficulties will invariably lead to spelling problems.

AURAL LANGUAGE DEVELOPMENT

As shown above, aural language involves hearing, listening, understanding spoken language and precedes the development of spoken language. Two central aural language skills are vocabulary development and the development of phonological skills.

Development of Vocabulary

Vocabulary development normally evolves rapidly in young children and is dependent on certain cognitive precursors, environmental experiences and opportunities. Vocabulary development forms our receptive and inner language (the language of thought) where knowledge and understanding leads to an awareness of terms and the formation of concepts.

Development of Phonological Skills

During the early years the child is quickly developing the ability to hear and identify speech sounds. Gradually, more sophisticated skills emerge involving the manipulation of these sounds. At this stage of development, these skills are acquired through listening and talking. They do not require formal, explicit instruction. They develop with the child's exploration of speech sounds including the use of sound and word play, nursery rhymes, songs, jingles etc. Most young children by the age of 3/4 years are capable of performing many phonological skills including identification, rhyming, blending and analysis. Such skills are considered to be essential for an easy take-off in reading. For the children who fail to acquire these skills naturally, formal instruction is necessary in the early years of schooling. As is shown in the Section on Reading, instruction in phonological development is a critical aspect of the literacy learning program. Research has shown that without relevant phonological skills, a child is at great risk of failing to acquire early reading skills. (See Section **Reading**-especially the information on the acquisition and development of phonological skills and the review of research and literature).

ORAL LANGUAGE DEVELOPMENT

Articulation (the production of spoken words) is a central aspect of oral language development. So, too, are higher-order skills including the use of pragmatics, syntax and grammar skills, semantics and metalinguistic skills. These will not be addressed in this Section. Rather the emphasis is on vocabulary development and how it relates to concept formation.

Vocabulary Development

Vocabulary development is identified and measured by a child's spoken language. Word usage in conversations, discussions and other oral presentations, enables a teacher to gain some insights into a child's language development and whether she/he is progressing at an age appropriate rate. Of course, as the child progresses through school, vocabulary knowledge is expanded through reading and written expression. Obviously, there is considerable variation in the vocabulary development of children of the same age. However, teachers have a general understanding of typical language development for age and can readily identify children who have underdeveloped language skills.

ACTIVITIES TO DEVELOP VOCABULARY KNOWLEDGE

Through informal and formal classroom activities, children naturally develop their vocabulary knowledge. Activities include communication between students and students and teachers.

Informal activities include-

- general discussions and conversations
- play and social interaction with peers

Formal, structured activities include-

- direct instruction on word meaning, building and usage
- expressing and developing ideas
- grammar lessons
- listening and speaking interactions
- oral presentations
- picture chats
- listening and responding to texts
- telling stories
- retelling stories
- examining literature
- reading
- creating literature including imaginative texts
- written expression
- poetry, rhymes, songs, chants
- computer software
- digital forms of communication

Through these and other activities, (see Literature English Scope and Sequence: Foundation Level to Level 3 AusVELS) the teacher actively guides, expands and elaborates a child's language.

INTELLECTUAL SKILLS: LEARNING OF CONCEPTS

Concepts are a critical subcategory of intellectual skills. Intellectual skills constitute *knowing how*, as contrasted with the *knowing that* of information. The student knows *how* to convert letters into sounds; transform printed symbols on the page into recognisable words; how to solve mathematical problems, how to convert fractions to decimals. Intellectual skills maybe divided into several subcategories and these subcategories can be ordered according to the complexity of the mental operation they imply. (Gagne, 1968). Furthermore, they are related to each other in that the more complex skills require the prior learning of simpler skills.

Beginning with the simplest of these intellectual skills, they are-

- discriminations
- concepts
- rules and
- higher-order rules

Learning each of these skills depends on the prior learning of one or more of the next simpler types of skills as pre-requisites.

Discriminations

In responding to the environment through symbols, the learner must first acquire the simple skill of distinguishing one feature of an object from another, which includes distinguishing one symbol from another. Many commonly useful discriminations are, of course, learned in early childhood, often without deliberate intent.

The infant learns gross discriminations pertaining to the features of her/his environment-colours, shapes and sounds-before she/he learns to speak. These discriminations continue to be refined in detail as a child gains experience (Gibson, 1968).

By the time the child begins to attend school, she/ he has already learned a great many important and useful discriminations, but, some have not yet been acquired. Thus, early education is often concerned with the learning of finer discriminations (or distinctive features) of shapes, textures, sounds and other kinds of stimuli. Examples are the discrimination of letter forms, like "m" and "n" or of the sounds of letters such as "v" and "b". When completed, it results in the selective perception of features of the learner's environment.

Concepts

When the prerequisite discriminations are available to the learner, she/he is then able to learn concepts. (See below for details).

Rules

A widely occurring type of intellectual skill is called a rule. A great deal of learning within educational programs is concerned with rules. The young student learns rules which enable her/him to "decode" words in reading, to spell words, to compose sentences, to perform arithmetical computations. Rules as learned capabilities make it possible for the individual to respond to a class of things with a class of performances. Thus, in learning long vowel spelling patterns, the student understands rules such as the "distant modification of vowels". For instance, "e" on the end of the word "hope" makes the vowel "o" say its name.

Higher-order Rules

Sometimes, more complex rules are assembled by the learner through the combination of simpler ones. Usually, when this happens, the learner is engaged in solving a novel problem-i.e., thinking.

CONCEPTS: DEFINITION, ATTRIBUTES AND TYPES

Definition

A concept is a class of stimuli that has common characteristics. These stimuli may be objects, events or persons. A concept is usually designated by its name, such as a city, book, transportation, child, student, teacher, artist and dream.

Concept Attributes

An attribute is a distinctive feature of a concept and thus varies from concept to concept. For example, the concept blue squares which has two attributes: colour and form. Colour, of course can vary from concept to concept and therefore qualifies as an attribute. We can have blue circles, blue triangles and blue rectangles. Size qualifies as an attribute because it can vary from concept to concept.

Attribute Values

Values are the particular variations an attribute may undergo. I have established colour as an attribute. It may have several values: yellow, red, green, blue and pink. Similarly, form may have several values: square, circle, octagon and oval. Concepts vary in the number of values their attributes have. The colour of an orange (fruit) can vary from orange-yellow to red-orange. The colour however must not vary so much that we confuse an orange with a lemon or grapefruit.

Concrete Concepts

Concepts that can be denoted by being pointed out: in other words, they are concepts identified by observation-red, tree, house, clown, word, numeral, round, ambulance.

Defined Concepts

These must be learned by the use of language-vocabulary. Sometimes they are called abstract, in order to distinguish them from the concrete variety. For example, the concept "sister" is a defined concept, not a concrete concept. One cannot identify instances of the class "sister" on the basis of their appearance, by picking them out or by pointing to them. It is necessary to apply a definition to show that one knows what a "sister" is. Abstract concepts like city, family, transportation, happiness and justice also have to be learned as defined concepts. They have no counterparts that can be identified by their appearance. These abstractions must be understood and communicated by means of a definition. The defined concept is then, in actuality, a classifying rule. It is therefore simply a special case of the type of intellectual skill called a rule.

TEACHING CONCEPTS

It would be difficult to overemphasise the significance of concept learning for formal education. The acquisition of concepts is what makes instruction possible.

In teaching concepts, teachers traditionally resort to vocabulary, vocal inflection, hand and arm gesticulations, highlighting, underscoring, diagramming, drawing, using pictures to make attributes, especially obscure attributes, obvious. Unless this emphasis is provided, the student will learn some attributes and not others and thereby fail to learn the complete concept.

The teaching and learning of concepts must be related to the student's level of intellectual development. According to Piaget the child's stage of development determines the level of thought possible. The theory of Piaget proposes that there are stages of growth that set limits to the cognitive development at a range of age levels;

- sensori-motor period (birth-2 years)
- preoperational period (2-7 years)
- concrete operations (7-11 years)
- formal operations (11- adult)

While concepts are developing naturally as the young child explores and interacts with her/his environment, in the main, these early concepts are concrete in nature. During the pre-school stage of development, the concepts are basically "discovered" or learned incidentally. There is usually little opportunity for formal, direct, explicit instruction.

In the context of school learning, we should not expect children at ages 5 -7 (the late preoperational period) or even from the ages of 7-11 (the period of concrete operations) to have the adult's capacity to form abstract thought (formal operations). In the period of concrete operations, the child's thinking is oriented toward concrete objects in his/her immediate environment.

In the period of concrete operations, the child can learn concepts which require the classification of concrete objects and events. In acquiring new concepts, she/he can employ her/his rudimentary concepts of time, space, number and logic. The child's intellectual operations show the characteristics of closure, association, reversibility and identity.

Clearly, the acquisition of concepts is also strongly linked to the vocabulary development of the child. While some concepts are learned by direct interaction with the learner's environment, others must be learned by the use of language. The latter type of concepts are really rules for classifying objects and events. It cannot be assumed that all children possess the vocabulary required to understand the definitions of concepts or the language of instruction at a particular grade standard.

Hence, the teacher must determine a child's readiness for concept development in terms of-

- level of cognitive development
- level of vocabulary development

As mentioned above, age basically determines level of cognitive development or thinking ability, although important differences can occur amongst children of the same age.

Again, for most children, vocabulary development keeps pace with maturation. Variation between children of the same age is to be expected. It is important that the teacher identifies individual differences amongst the students.

SOME RELEVANT RESEARCH

Empirical evidence strongly supports the importance of vocabulary development in young children, especially among students who are most at risk for long term educational failure (e.g., Shaywitz & Shaywitz, 2005). Although vocabulary development, in general, is an essential aspect of cognitive and academic growth, basic concepts substantially extend the relative importance of vocabulary development. These fundamental vocabulary terms represent the functional representations needed to understand classroom activities and discussion. The basic language concepts that pervade early childhood concept tests also abound in early childhood classroom teachers' daily communications and directives (Boehm, Classon, & Kelly, 1986). Kaufman and Kaufman (1977), for example, contrasted children's understanding of basic concepts as assessed on preschool tests and the child's understanding of communications in the classroom: "A child who does not seem to comprehend concepts such as opposite, backward, before or same is likely to have difficulty understanding much of what is said to him by his teacher, parent, and peers". (p.200).

Bracken and Panter (2011) contended that basic concept acquisition is not only essential for understanding classroom discussions and test directions, it is strongly correlated with overall vocabulary, language production and understanding and school readiness and academic achievement. Booth and Waxman (2002) highlighted the importance of concept development as a buttress of literacy development among preschool children. It is important to note that unlike overall cognitive abilities (i.e., intelligence), which cannot be readily modified through intervention, research outcomes support the use of direct instruction to facilitate conceptual development.

Bracken (1984, 1987) has assembled a list of concepts that would represent the universe of terms all young children should understand before attending school or at least be taught during their first years of formal education.

Like Boehm (1967), Brigance (1976, 1977) and Sykes (1998, 2000, 2012) Bracken began with a categorical scheme that included such diverse linguistic categories as relational concepts (i.e., directional and positional concepts); time and sequence; textures and materials; quantity; self and social awareness and the school readiness conceptual categories of colours, shapes, sizes, numbers and counting, letter identification and comparatives.

Clearly, Bracken's categories far extended the earlier work by researchers. His search for basic concepts included a thorough examination of extant early childhood curricula, tests, curricular literature and published research in developmental, linguistic and cognitive psychology.

I have attempted to cover an extensive range of early learning concepts in several Sections on this DVD, including this Section. Relevant concepts have been covered, and in many instances, the student's knowledge directly assessed through specific checklists. See the following Sections for details-

- Learning Readiness
- Early Learning Essentials 1: Directionality
- Mathematics

Bracken's second goal was to develop an instrument to assess basic concept comprehension and a companion curriculum to instruct children in these fundamental concepts. As part of that goal, he has strongly advocated for the importance of fostering concept development so that parents and educators would strive to ensure that children started school with a common understanding of these essential terms. The interested reader is strongly recommended to review the extensive work done by Bracken and colleagues. See references for details.

SOME SUGGESTED ACTIVITIES FOR TEACHING CONCEPTS

CONCEPT ATTAINMENT: A STRATEGY

Jerome Bruner developed a concept attainment model that engages the student in an active, dynamic, thinking manner that is not usual in more traditional ways of teaching concepts. This model assumes that the learner is active and interested, that the concept is meaningful and the general approach is intrinsically motivating.

There are six stages to a concept lesson.

Stage 1

Teacher gives examples and non-examples of the concept.

- seawater X (non example)
- milk ✓ (example)
- wine X
- apples X
- orange juice ✓

Stage 2

Students generate hypotheses about the identity of the concept.

- it is natural food
- it is food we drink
- it is food our parents want us to eat
- it is healthy drinks
- it is drinks I can buy in a shop

Stage 3

Teacher and student accept or reject hypothesis on the basis of present information.

- reject because an apple is a natural food that is not an example of the concept
- reject because wine is also a food we drink
- reject because most parents want you to eat apples
- accept because the two examples are both healthy and drinkable
- reject because you can buy wine in a shop

Stage 4

Students give more examples to check hypothesis.

apple juice ✓	healthy drink
coke X	not healthy
an orange X	not a drink
water ✓	healthy drink

Stage 5

Define the concept.

The concept is things that you can drink that are healthy.

Stage 6

Discuss the attributes of the concept.

Things you drink would be known from previous experience.

What makes a drink healthy would include being a natural product, containing vitamins and minerals, not containing an undue number of additives, etc.

SOME GENERAL ACTIVITIES

Categorising

1. Children are required to name everything they can think of that is taken-
to the beach
to school
on holidays
on a sleepover
on a picnic
on a camping trip
on a visit to the grandparents
to the zoo
to an adventure park
on a shopping trip

2. Ask children how things are alike/similar.

A dog, cat, horse?
A chair, table, stool?
Milk, tea, coffee?
A bird, chicken, swan?
A shirt, jumper, dress?
A hammer, saw, screwdriver?
A vase, jar, bucket?
A car, train, tram?
A plane, bird, kite?
A tree, flower, bush?
Summer, Winter, Autumn?
Monday, Wednesday, Friday?
River, stream, creek?
Red, green, blue?
A piano, guitar, violin?
A book, comic, magazine?
A dam, pond, lake?
A shoe, boot, sandal?
A house, flat, apartment?
A nail, screw, tack?
A steering wheel, boot, bonnet?
Ball, racket, net?
Earth, Venus, Mars?
Letter, word, sentence?
A knife, fork, spoon?
A bee, butterfly, fly?
Ear, eye, nose?
Soap, flannel, towel?
Shell, starfish, crab?
A pencil, pen, crayon?
A story, a poem, a magazine article?
A radio, computer, ipad?

Student asked which one is different? Does not belong?

Red, blue, car
Tree, flower, rock
Ant, bee, mouse
Tuesday, March, Friday
Letter, number, word
Carrot, lettuce, apple
Spoon, knife, axe
Soap, detergent, towel
Guitar, drums, fork
Snow, rain, rainbow
Arm, shoe, elbow
Tram, train, ticket
Skirt, shirt, leg
Comb, hair, toothbrush
Cup, bottle mug
Rock, silver, gold
Cold, Autumn, Summer
Spade, grass, rake
Flowers, shop, market
Sad, smile, happy
Lawn, tree, grass
Two, four, letter
Bread, cakes, chef
Sand, waves, umbrella
Swan, dog, eagle
Nest, home, worm
Orange, apple, garden
Car, bicycle, motorbike
Mushroom, fern, toadstool
Book, magazine, envelope

3. Student asked to name everything she/he can think of that-

Has feathers
Has four legs
Is tiny
Is blue
Is smooth
Is sharp
Has two legs
Lays eggs
Builds nests
Grows in gardens
Lives in water
Used in the kitchen
Is found in a garage
Is found in a wallet
Gives milk
Flies
Swims
Digs
Cuts
Lives on a farm
Grows
Climbs
Builds nests
Eats grass
Gallops
Lives in the forest
Lives in trees

4. Student names three-

Vegetables
Reptiles
Colours
Birds
Animals
Coins
Fruit
Shapes
Countries
Suburbs
Stations
Clothes
Tools
Drinks
Insects
Months
Seasons
Food
Trees
Cars
Foods

5. Opposites

Teacher reads sentences for student to complete-

Left is the opposite of (right)
Up is the opposite of (down)
Hard is the opposite of (soft)
Slow is the opposite of (fast)
Happy is the opposite of (sad)
Empty is the opposite of (full)
Rough is the opposite of (smooth)
Few is the opposite of (many)
Top is the opposite of (bottom)
Big is the opposite of (small)
Early is the opposite of (late)
Light is the opposite of (heavy)
Deep is the opposite of (shallow)
Rich is the opposite of (poor)
Strong is the opposite of (weak)

6. Analogy

To assist children grasp the idea of analogy, teacher reads the following sentences and asks them to fill in the blanks-

A boy is to a man as a (girl) is to a woman
A foot is to a shoe as a (hand) is to a glove
A picture is to the eye as radio is to the (ear)
A puppy is to a dog as a kitten is to a (cat)
A seed is to a tree and an (egg) is to a bird
A doctor is to illness as a teacher is to (learning)
A clown is to laughter as an actor is to (speaking)
A musician is to music as an artist is to (art)
A glove is to a hand as a (sock) is to a foot.
A ticket is to a train as a (boarding pass) is to a plane
A cook is to cakes as a singer is to (songs)
Green is to grass as blue is to (sky)
Petal is to flower as leaf is to (plant)
A teacher is to teaching as a student is to (learning)
A book is to reading as a pencil is to (writing)
A camel is to desert as a whale is to (ocean)
A month is to a year as a (day) is to a week.
Up is to down as in is to (out).
Far is to near as inside is to (outside)
Big is to small as fast is to (slow)
Funny is to laugh as sad is to (cry)
A farm is to the country as a (house) to the city
A car is to a road as a boat is to (water)
Food is to plate as (cup) is to drink
An artist is to painting as a composer is to (music)

Opposite Analogies

An elephant is big and a mouse is (small)
The sun is hot and ice is (cold)
Feathers are light and stones are (heavy)
Sandpaper is rough and glass is (smooth)
In daytime it is light, at night it is (dark)
Father is a man, mother is a (woman)
A snail is slow, a rabbit is (fast)
A mouse is small, an elephant is (big)
A mountain is high a (valley) is low
An ocean is deep a pool is (shallow)
A ring is round a box is (square)
A sponge is soft a rock is (hard)
A rock is heavy a feather is (light)
A needle is sharp a hammer is (blunt)

Similarities

What do you do when your are?

Cold
Hungry
Tired
Angry
Happy
Sad
Frightened
Energetic
Dreamy
Creative
Lonely

Classification and Grouping

This activity is useful in helping children explore concepts through grouping and classifying things. Through direct, concrete tasks children can discover the similarities and differences in objects. For example, in teaching the concepts of letter and number, concepts that are frequently confused by young school children, the following material can be used.

Have small cards with lowercase letters written on some (say 10) and have an equal number of cards with numerals written on them. Place all the cards together and ask the child-

- What are these? What do we call them?
- Are they all the same?
- Can you place them in groups?

Through guided instruction-cueing and prompting- the child should be able to distinguish between letters and numerals. This is a very important step in learning to read.

Similar activities can be used to teach other important concepts such as-

- lower and uppercase letters
- letters and words
- words and sentences
- letter names and letter sounds

SOME IMPORTANT EARLY LEARNING CONCEPTS

In several other Sections, important concepts have been identified-

- Learning Readiness
- Early Learning Essentials 1-Directionality
- Mathematics

Some of the concepts are introduced and assessed through checklists while others are presented using curriculum scope and sequence.

The interested reader should consult these Sections to gain a comprehensive overview of important early learning concepts.

Not all the concepts identified above will be repeated here but inevitably there will be considerable overlap.

The list of concepts below has been drawn for several sources including-

- VELs
- AusVELs

The period of early childhood covered is from birth to 8 years.
For school aged children, the relevant Curriculum Standard covers Foundation to Level 3.

The curriculum areas covered include the following-

- **handwriting**
- **reading**
- **spelling**
- **written expression**
- **mathematics**

LITERACY CONCEPTS

The aim of the following tasks is to assess the student's knowledge of some basic literacy words and concepts.

The student is required to demonstrate a knowledge of the following words and concepts. Pictures, diagrams, drawings and/or actions may be used by the teacher to test an understanding of each word/concept.

HANDWRITING: Words and Concepts

Tick correct responses.

Item	✓	Item	✓
1. draw		22. pencil grip	
2. scribble		23. squeeze grip	
3. trace		24. patterns	
4. copy		25. shapes	
5. write		26. round	
6. letters		27. curved	
7. words		28. straight	
8. sentences		29. starting point	
9. capital letters		30. start	
10. small letters		31. right	
11. upper-case		32. left	
12. lower-case		33. slant	
13. joined letters		34. tails	
14. unjoined letters		35. circle	
15. print		36. spaces	
16. cursive		37. position	
17. hold		38. computer	
18. pencil		39. screen	
19. pen		40. mouse	
20. crayon		41. keyboard	
21. grip		42. keys	

READING: Words and Concepts

Tick known concepts.

Item	✓	Item	✓
1. book		20. read aloud	
2. cover		21. read silently	
3. page		22. reading on	
4. writing		23. my turn	
5. words		24. your turn	
6. letters		25. repeat	
7. sentence		26. self-correcting	
8. sounds		27. author	
9. alphabet		28. illustrator	
10. story		29. comma	
11. heading		30. full stop	
12. drawing		31. question mark	
13. picture		32. computer	
14. page number		33. screen	
15. print		34. start	
16. text		35. enter	
17. front		36. play	
18. back		37. quit	
19. read together		38. exit	

READING

Concepts About Print Test (Marie Clay, 1972)

This test assesses a child's understanding of pre-reading concepts about print. The unknown concepts are marked below:

ITEM	CONCEPT
1	Orientation of the book- Cover
2	Print carries the message-Not Picture
3	Directional rules (where to start)
4	(moving left to right)
5	(return sweep to next line)
6	Word by Word pointing-While teacher reads
7	Concept of first and last-Part of the story
8	Inversion of the picture-Show me the bottom
9	Response to inverted print-Where to begin
10	Line sequence-Bottom line read then top line
11	Left page read before right page
12	Word sequence- Text read in scrambled order
13	Letter order-Identify misspelled words
14	Re-ordering letters within a word-Correct mistake
15	Meaning of a question mark
16	Punctuation (full stop)
17	(comma)
18	(quotation mark)
19	Capital and lower case correspondence
20	Reversible words
21	Letter concepts
22	Word concepts
23	First and last letter concepts
24	Capital letter concepts

Clay, M. M. (1972). Sand-the Concepts About Print Test. Heinemann Publishers, Auckland.

Clay (1972, 1979, 1993) has made a very significant contribution to the teaching of reading. Her work highlighted the importance of the systematic observation of young children as they learn to read. Included in her Observational Survey are-

- running records
- letter identification
- concepts about print
- word tests
- writing
- hearing sounds in words (dictation)

The Concepts about Print Test used two booklets-Sand (1972) and Stones (1979). The booklets are used to assess the 24 concepts identified in the above Table. Explicit instructions are given but will not be repeated here. I have summarised the task requirements in the above Table to assist teachers to understand what the child is required to do. Although not ideal, it is possible for a teacher to use any early reader to ascertain a child's knowledge of the above concepts.

SPELLING: Words and Concepts

Tick known concepts.

Item	✓	Item	✓
1. writing		18. beginning	
2. words		19. initial	
3. letters		20. end	
4. sounds		21. middle	
5. alphabet		22. sight words	
6. sentence		23. rules	
7. capital letter		24. consonant	
8. small letter		25. vowel	
9. silent letters		26. digraph	
10. onset		27. long vowel	
11. rime		28. short vowel	
12. sounding out		29. comma	
13. rhyme		30. full stop	
14. syllable		31. question mark	
15. prefixes		32. copy	
16. suffixes		33. cover	
17. morphemes		34. dictation	

WRITTEN EXPRESSION: Words and Concepts

Tick known concepts.

Item	✓	Item	✓
1. writing		22. text	
2. words		23. plot	
3. letters		24. character	
4. sounds		25. setting	
5. alphabet		26. author	
6. sentence		27. punctuation	
7. capital letter		28. full stop	
8. small letter		29. comma	
9. stories		30. question mark	
10. rhymes		31. exclam. mark	
11. prose		32. apostrophes	
12. songs		33. nouns	
13. poetry		34. verbs	
14. poem		35. adjectives	
15. diary		36. adverbs	
16. journal		37. pronouns	
17. edit		38. grammar	
18. paragraph		39. recount	
19. narrative		40. dialogue	
20. fantasy		41. contraction	
21. mystery		42. possession	

NUMERACY CONCEPTS

As mentioned above, the Section-**Mathematics**-contains many concepts and vocabulary specifically relevant to Directionality. Some will be repeated here.

The following concepts have been drawn mainly from two sources-

- VELs
- AusVELs

Inevitably, there is some overlap of concepts in the different areas.

The aim of the following tasks is to assess the student's knowledge of some basic maths words and concepts.

The student is required to demonstrate a knowledge of the following words and concepts. Pictures, diagrams, drawings and/or actions may be used by the teacher to test an understanding of each word/concept.

Relational: Words and Concepts

Tick correct responses.

Item	✓
1. smaller than	
2. bigger than	
3. more	
4. less	
5. equal	
6. every	
7. none	
8. most	
9. least	
10. all	
11. part	
12. whole	
13. few	

Quantity: Words and Concepts

Tick correct responses.

Item	✓
1. groups	
2. some	
3. same	
4. empty	
5. full	
6. more	
7. less	
8. least	
9. balance	
10. few	
11. most	
12. as much	
13. how many	
14. how much	
15. sets	
16. different	

Number and Place Value: Words and Concepts

Tick correct responses.

Item	✓	Item	✓
1. number		17. tens	
2. place value		18. hundreds	
3. number line		19. multiplication	
4. counting		20. repeat.add.	
5. counting on		21. division	
6. rote counting		22. multiplication	
7. place counting		23. multipl. facts	
8. group		24. multiples	
9. partitioning		25. units	
10. rearranging		26. ones	
11. most		27. sequence	
12. as much		28. order	
13. how many		29. odd	
14. how much		30. even	
15. addition		31. primes	
16. subtraction		32. composites	

Fractions: Words and Concepts

Tick correct responses.

Item	✓
1. whole	
2. parts	
3. fraction	
4. equal groups	
5. equal parts	
6. one half	
7. one quarter	
8. halves	
9. quarters	
10. eighths	
11. fifths	
12. tenths	
13. numerator	
14. denominator	
15. equivalent	

Chance: Words and Concepts

Tick correct responses.

Item	✓
1. will happen	<input type="checkbox"/>
2. won't happen	<input type="checkbox"/>
3. might happen	<input type="checkbox"/>
4. likely	<input type="checkbox"/>
5. unlikely	<input type="checkbox"/>
6. maybe	<input type="checkbox"/>
7. certain	<input type="checkbox"/>
8. possibly	<input type="checkbox"/>
9. possible	<input type="checkbox"/>
10. impossible	<input type="checkbox"/>
11. chance	<input type="checkbox"/>
12. random	<input type="checkbox"/>

Money: Words and Concepts

Tick correct responses.

Item	✓
1. coins	<input type="checkbox"/>
2. notes	<input type="checkbox"/>
3. buying	<input type="checkbox"/>
4. selling	<input type="checkbox"/>
5. change	<input type="checkbox"/>
6. 5 cents	<input type="checkbox"/>
7. 10 cents	<input type="checkbox"/>
8. 20 cents	<input type="checkbox"/>
9. 50 cents	<input type="checkbox"/>
10. 1 dollar	<input type="checkbox"/>
11. 2 dollars	<input type="checkbox"/>
12. 5 dollars	<input type="checkbox"/>
13. 10 dollar	<input type="checkbox"/>
14. 20 dollars	<input type="checkbox"/>
15. 50 dollars	<input type="checkbox"/>

Measurement: Words and Concepts

Tick correct responses.

Item	✓	Item	✓
1. time		17. lighter	
2. days		18. heavier	
3. weeks		19. length	
4. month		20. longer	
5. hour		21. shorter	
6. year		22. metric	
7. quarter-hour		23. millimetre	
8. half-hour		24. centimetre	
9. minute		25. metre	
10. second		26. kilometre	
11. o'clock		27. volume	
12. past		28. holds more	
13. to		29. holds less	
14. seasons		30. capacity	
15. calendar		31. measurement	
16. mass		32. balance scales	

Location and Transformation: Words and Concepts

Tick correct responses

Item	✓
1. position	
2. movement	
3. maps	
4. one strip slides	
5. flips	
6. half-turn	
7. quarter-turn	
8. grid maps	
9. position	
10. pathway	
11. symmetry	
12. lines	
13. angles	
14. co-ordinates	
15. vertical	
16. horizontal	
17. parallel	

Data Representation and Interpretation: Words and Concepts

Tick correct responses.

Item	✓
1. data	
2. collect	
3. check	
4. classify	
5. lists	
6. tables	
7. picture graphs	
8. column graphs	
9. bar graphs	
10. line graphs	
11. pie graphs	
12. Venn diagram	

SOME SELF/SOCIAL AWARENESS CONCEPTS

The aim of the following task is to assess the student's knowledge of some basic self/social awareness words and concepts.

The student is required to demonstrate a knowledge of the following words and concepts. Pictures, diagrams, drawings and/or actions may be used by the teacher to test an understanding of each word/concept.

Tick correct responses

Item	✓
1. happy	
2. sad	
3. upset	
4. excited	
5. frightened	
6. safe	
7. bully	
8. bullied	
9. healthy	
10. sick	
11. tired	
12. upset	
13. right	
14. wrong	
15. correct	
16. confident	
17. girl	
18. boy	
19. father	
20. mother	
21. male	
22. female	
23. man	
24. woman	
25. friend	
26. friendship	
27. buddy	

RESOURCES

Tests/Programs

Boehm, A. E. (1969). Boehm Test of Basic Concepts. New York: The Psychological Corporation.

Bracken, B. A. (1987). Bracken Concept Development Program. San Antonio, TX: Harcourt Assessments.

Brigance, A. (1992). Brigance K & I Screen (3rd Ed.). North Billerica, MA: Curriculum Associates.

Bracken, B. A. (1998). Bracken Basic Concept Scale-Revised. San Antonio, TX: Harcourt Assessments.

Links

[http:// study.hibeniacollege.net](http://study.hibeniacollege.net)

(Concept Formation, Cognitive Development and Rationality).

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