1. Introduction

The Assessment of Comprehension and Expression 6–11 (ACE 6–11) is a test of language development for children aged between 6 and 11 years. ACE 6–11 has been designed for use with children who have a delay or disorder of language development. The test is suitable for use by speech and language therapists, psychologists and other professionals who are familiar with the use and interpretation of standardised testing procedures and who have a knowledge of language structure. ACE 6–11 can be used to assess the language skills of children who have specific delays or impairments of language and also children who have additional disabilities, provided they can participate in the testing situation. It aims to produce an overall picture of language ability.

ACE 6–11 includes items which tap not only verbal comprehension and grammar but also aspects of semantic and pragmatic knowledge that are known to be vulnerable in the older child with language impairment. The test is simple to administer and has a range of engaging picture materials. It has been designed to enable comparisons between subtest scores for the purpose of identifying children with significant and unusual patterns of language development or children with relatively even patterns of delay across subtests. Consideration has been given in the design of ACE 6–11 to the needs of the multidisciplinary team involved in the management and education of children with language delays and disorders and the requirements of specific curricula.

ACE 6–11 is a flexible test which provides the practitioner with choice as to depth and breadth of testing. There are two versions of the test – a Main Test and an Extended Test. There are five subtests in the Main Test. These five subtests plus two additional subtests make up the Extended Test. The difference between the Main and Extended Tests is principally that the Main Test is shorter to administer. In addition, the Extended Test contains a Narrative subtest which requires audio-recording and some simple syntactic analysis. Some practitioners may prefer to administer the Main Test in preference to the Extended Test on occasions where time or facilities are limited. Both Main and Extended Tests produce appropriate test statistics which have been subjected to reliability analysis, and both tests can supply valuable and extensive information about the child's language ability.

The test was developed at the University of Manchester and is based on current research in the assessment of language development. A preliminary version of ACE 6–11 was trialled by speech and language therapists with children who have language impairments as well as with a large number of children who were developing language typically. The data from this trial informed the evolution of the test, particularly with regard to ensuring that it is of a suitable length to be administered to children with speech and language problems in one clinical session. The post-trial version of the test was then standardised on a sample of 790 children aged between 6 and 11 years in the United Kingdom and Republic of Ireland. The standardisation version of ACE 6–11 was also administered to a group of 66 children with developmental language impairments. This will be referred to as the clinical sample. (More detailed information on these two groups can be found in Section 5, page 91.)

1.1 Purposes of ACE 6–11

1. To identify children with delayed language development who are between the ages of 6 and 11 years.

2. To probe areas of particular and persistent difficulty in language development for older children with developmental language difficulties, including children with specific language impairments (SLI).

3. To identify language impairments in children with additional non-verbal learning disabilities or autistic traits, provided adequate co-operation can be gained for the testing procedure and the child has an overall level of language as indicated in Section 1.8 (page 8).

4. To provide direction for further in-depth investigation of language development.

5. To provide background information for the development of an overall management or therapeutic strategy.

6. To assess a specific aspect of language ability in a child, for example, non-literal comprehension, which may add information to the development of a therapeutic plan.

1.2 Rationale for ACE 6–11

Tests of language development in *pre-school children* tend to attempt to establish very precise levels of development in terms of number of words which can be comprehended per sentence or precise grammatical structures in output. This is possible because the precise sequences of typical development in the early years are well described and also because discrete levels of development can be identified by simple methods of observation owing to the data being relatively constrained.

Assessing language in *older children* presents a different set of challenges. Discrete developmental levels may be established in some aspects of language development, say, vocabulary or some aspects of comprehension. There are, however, many aspects of language development in the school-age years which depend upon the integration of various language and cognitive skills and which represent developments 'above the sentence level'. In any test of language development for children of this age it is important to reflect these facts and also to take into account the social communication demands placed upon the child in an educational environment. ACE 6–11 is based on these premises. By the age of 6 years, children have a wealth of personal, linguistic, educational and cognitive experience which they bring to the language testing experience in very individual ways.

A language assessment may be designed to include separate tasks, each specifically geared to tapping a particular language 'skill'. In developing such tasks there is a compromise between manipulating the task to a level at which a specific skill can be demonstrated, and assessing language as it is likely to be used in the everyday environments of these children. ACE 6–11 steers towards the latter position but includes some aspects of the former. That is, it attempts to divide language development into major categories of word, sentence and above sentence-level processing. One of the primary motivations, however, was to keep the tasks in ACE 6–11 interesting and engaging for children and more similar to the type of tasks they may face everyday than to isolated linguistic measurements.

A criticism which is often levelled at language testing is that other aspects of development are being assessed in addition to linguistic ability. Limited auditory memory, attention and listening skills are frequently cited as contributing to poor performance on language tasks. All these skills, and others which have received less research attention, are involved in language processing. This does not mean that the test is invalid if these skills affect performance. It simply means that they are important aspects of development that affect the child's ability to perform language-processing tasks in the way that typical peers do. ACE 6–11 is aimed at assessing language development in relation to the performance of those peers and in the context of related cognitive demands. Thus it looks at the way in which language is processed by that child on that occasion and how this is similar or different to the performance of typical peers based on a large standardisation sample. The relative contribution of specific linguistic or more general difficulties may not be identifiable from this test alone, but evidence may be sought from the pattern of a child's performance across different cognitive assessments or across different subtests within ACE 6–11.

1.3 Overall structure of ACE 6–11

The test is structured into a Main Test (which contains five subtests) and an Extended Test (which comprises the Main Test plus two additional subtests). This structure is set out in Figure 1. It is recommended that the Extended Test be carried out wherever possible in order to gain as full a picture as possible of the child's language abilities. If time is short, however, the Main Test might be preferred as the Extended Test contains elements which will take longer to analyse. The syntactic and discourse analysis contained in the Narrative subtest of the Extended Test is accessible to all practitioners whether or not they have had training in language analysis, but the practitioner should bear in mind the need to study carefully the guidelines for scoring this subtest prior to administration. (Reliability coefficients for the Main and Extended Tests are given in Table 16, Section 5, page 104.)

Figure 1: Structure of ACE 6–11

	Composite tests	
	Main Test	Extended Test
Main subtests	Sentence Comprehension	Sentence Comprehension
	Inferential Comprehension	Inferential Comprehension
	Naming	Naming
	Syntactic Formulation	Syntactic Formulation
	Semantic Decisions	Semantic Decisions
Extension subtests		Non-Literal Comprehension
		Narrative Propositions
		Narrative Syntax/Discourse

The complete test kit consists of:

- this Manual, including directions for scoring
- Picture Book
- Record Booklets
- Answer Templates.

1.4 Flexible testing

ACE 6–11 can be administered flexibly according to the needs or abilities of individual children. Standard scores can be derived for:

- individual subtests (either main or extension)
- the ACE 6–11 Main Test
- the ACE 6–11 Extended Test.

Examples of ways of administering ACE 6–11 include:

- administering the five main subtests and then deriving standard scores and percentiles for the Main Test;
- administering the main and extension subtests and deriving standard scores and percentiles for the Extended Test and completing the profile chart;
- administering a specific selection of subtests and examining the pattern of standard scores, the confidence bands and percentiles on this selection. For example, for a child with syntactic difficulties Sentence Comprehension, Syntactic Formulation and Narrative Syntax/Discourse subtest scores may be examined. When this approach is adopted it will be essential that confidence bands are also examined because precision is lower for individual subtests than for composite test scores.

The more subtests are completed, the more accurate and reliable the overall picture of the child's language abilities will be. The most accurate picture will be derived from completing the Extended Test, but the Main Test is only a little less precise. The precision of individual subtest scores is considerably lower. For this reason, when using only a selection of individual subtests, **it is strongly recommended that a minimum of three subtests is applied** in order to achieve adequate confidence in the results. It is not advisable to administer one subtest on its own unless there is a sound reason – such as a reassessment on a specific aspect of language which has been the focus of remediation, for instance. It is not possible to identify a language impairment on the basis of a single subtest. (See Section 5 for details of subtest and composite subtest score reliability.)

It is also inadvisable to readminister ACE 6–11 within 6 months (in line with the practice common to the administration of other psychometric tests).

The amount and type of testing to be chosen depends on the purpose of assessment (see Figure 2).

Figure 2: Purpose of testing and choice of subtests

Purpose	Description	Use subtests
Identification or screening	Identification of a language problem in a child with no prior assessments	Main Test or Extended Test
Diagnosis/further investigation/older child with discourse deficits	Identification of the nature of a suspected language problem in a child with some previous assessments (i.e. diagnostic)	Extended Test
Intervention planning	When a language problem has been identified but a comprehensive picture is required in order to build up priorities for intervention	Extended Test, or a specific set of subtests to complement other tests already administered
Focused assessment	When a specific problem, e.g. sequencing in narrative, is suspected as a problem area or to assess change in an area of language which has then been the focus of therapy	Use a selection of subtests

1.5 Length of testing

For both the standardisation sample and the clinical sample, the mode for the length of time taken to complete the Main Test was 26 minutes, that is more children took 26 minutes to do the test than any other length of time. The mode for the length of time taken to complete the Extended Test was around 42 minutes for both samples.

Of the standardisation sample, 80% completed the Main Test in 32 minutes or less, and the Extended Test in 46 minutes or less; 80% of the clinical sample completed the Main Test in 40 minutes or less and the Extended Test in 59 minutes or less.

1.6 Test scores available

An explanation of statistical terms and test scores is given in the Glossary on page 123.

Individual subtest scores

For individual subtests, raw scores can be converted to standard scores and to percentile ranks. Both of these allow comparison of a child's performance to that of his or her peer group (see Scoring Tables in the Appendix). Note that the two parts of the Narrative subtest – Propositions and Syntax/Discourse – are treated as distinct measures and separate standard scores are derived for the two parts.

Main Test scores

An ACE 6–11 Main Test standard score can be derived from the individual standard scores of the five main subtests (see Scoring Tables in the Appendix). Main Test percentile ranks are also provided.

Extended Test scores

An ACE 6–11 Extended Test standard score can be derived from the individual standard scores of all seven subtests (and separately for the two parts of the Narrative subtest). Extended Test percentile ranks are also provided in the Appendix.

Confidence bands

80% and 95% confidence bands are provided for the Main Test, Extended Test and individual subtest standard scores.

1.7 Profiling scores

In addition to tabulating standard scores, a profile of individual subtest standard scores may be made (see Figure 3). The profile chart is printed on the front of the Record Booklet, and examples of profiling are provided in this Manual in Section 3.4 (page 72) and in the case studies (Section 4, page 81).

Figure 3: Profiling chart
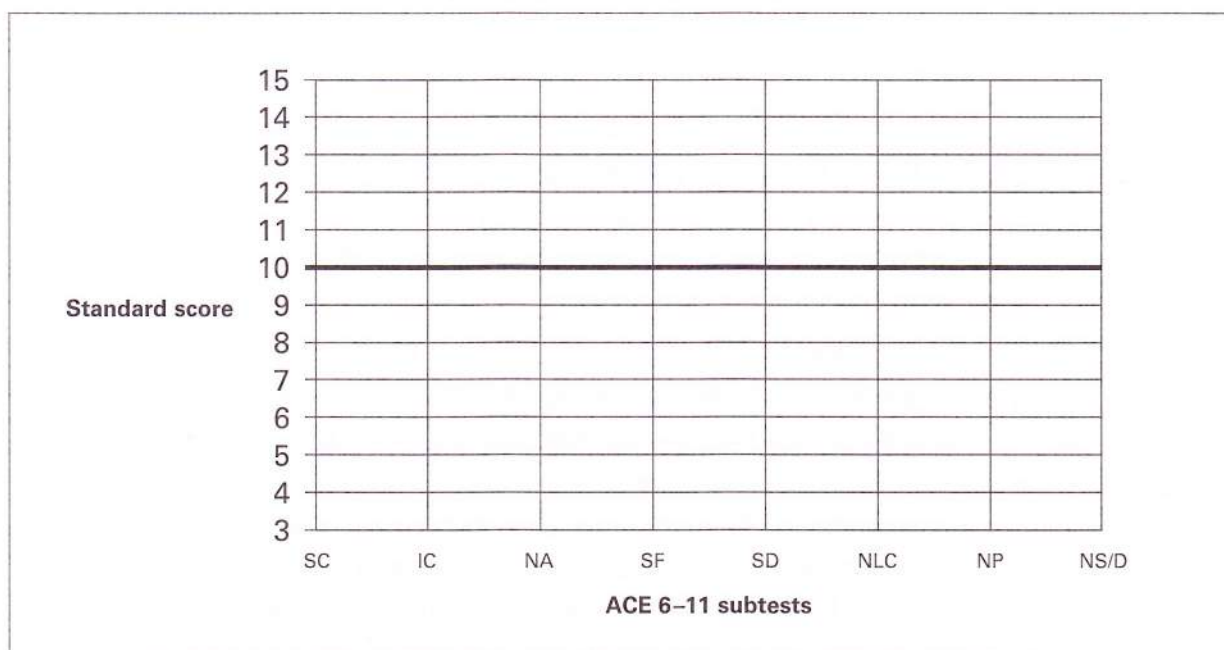
Profiles, while useful for explanatory purposes, should be treated with caution. It may be possible to obtain an indication of a weak aspect of language development but it is not possible to say with certainty that one subtest performance is significantly different to another without appropriate statistical comparisons. 80% and 95% confidence bands for specific ACE 6–11 subtest standard scores are reported in the Scoring Tables in the Appendix, and tables of statistically significant differences between any two subtests are provided in Tables 5 and 6 on pages 69 and 70.

A quick method for determining whether performance on two subtests is substantively different by examining the 80% confidence bands for each of the two scores is described in detail in Section 3.3, page 68. If the two confidence bands do not overlap, it is quite likely that the two scores are significantly different at the 95% level. This would need to be confirmed by referring to the tables of significant differences (Tables 5 and 6). As is common with tests of language, confidence bands are quite wide for certain subtests and therefore a fairly large difference in scores will be needed for statistical significance to be reached.

1.8 Restrictions

1. ACE 6–11 has sufficient 'floor' to assess children who are functioning at approximately three standard deviations below the mean at age 6:00 on each subtest. The amount of information that will be gleaned from using ACE 6–11 with a young child who has extremely delayed language skills will be limited. If the child has a mean length of utterance of three words or less, or comprehension is at a level below 'simple sentence' or 'three information-carrying words' (and the child falls within the 6 to 7 year age band), then a more appropriate test to use is the *Reynell Developmental Language Scales III* (*RDLS III*; Edwards *et al.*, 1997).

2. Factors such as motivation, distraction, attention to picture stimuli, visual processing, and auditory memory are inevitably part of the assessment process. ACE 6–11 does not therefore claim to assess language without reference to these factors. If additional information regarding the testing process is considered to be influential in interpreting the results, this should be recorded in the comments section in the Record Booklet at the time of testing.

3. ACE 6–11 provides an overall profile of language ability and is not intended to tap any one specific domain of language in great depth. It can, however, indicate where additional testing may be beneficial. Although ACE 6–11 contains elements of pragmatic and semantic assessment, it cannot identify an isolated pragmatic language impairment where there is no evidence of comprehension or expressive language delay or disorder in addition to abnormalities in language use. ACE 6–11 should not be used to identify specific problems with literacy development, but it may be useful as a supplementary test with children who do have these difficulties as a means of identifying any background language delay.

4. ACE 6–11 was standardised on a population of English-speaking school children from the UK and the Republic of Ireland. No norms are currently available for children

acquiring English as a second language, nor are there any norms specifically for children with learning, sensory or physical difficulties.

5. The examiner should have sufficient knowledge of testing procedures, interpretation of test statistics and linguistic knowledge to enable scoring of the test and interpretation of the results.

1.9 Theoretical background

ACE 6–11 is founded on current research literature on the language development of typical children and of children who have delayed or disordered language development in this age range. The term 'typical' will be used to denote the child who is developing language normally and at appropriate milestones. A brief review follows of the rationale for the inclusion of each subtest, the typical development expected in this age range and existing evidence about the performance of children with language impairments on the kind of tasks in ACE 6–11.

Sentence Comprehension

The Sentence Comprehension subtest assesses:

- the ability to decode specific verbal concepts of space, time and emotion in sentences;
- the ability to decode sentences of increasing length and syntactic complexity.

The verbal concepts presented in ACE 6–11 have in common a degree of abstractness of meaning. The more concrete and evident the context and the characteristics of the referent of a word, the easier it will be to learn (Crais, 1990). Bracken (1984) found that many children enter school without adequate understanding of terms such as 'other' or 'above'. Research suggests that verbal concepts relating to spatial location are relatively late maturing in the typical child, still developing at 9 years (Guimaraes, 1999; Martinot, 2000).

Children who have language learning deficits may present with problems using and understanding specific verbal concepts (Wiig *et al.*, 2001). Aspects of verbal use and understanding of terms associated with time and space in particular have been identified as problematic for children with specific language impairments (SLI) (Siegel *et al.*, 1981). The literature on children with semantic-pragmatic language difficulties (Rapin & Allen, 1987) describes rigidity of conceptual development underlying misinterpretation of such terms in these children (Smedley, 1989). The explanation of slow verbal concept development and specific difficulty with types of verbal concepts has been elusive. If children have conceptual problems early in life then it will be difficult for them to understand and use the vocabulary which describes these concepts later on. However, there is little support for the notion of general conceptual delay in children with SLI.

It could be hypothesised that certain verbal concepts with relatively non-concrete referents place heavy demands on learning for children with language impairments, who may be over-reliant on physical and visual contexts to learn meanings of words.

Knowledge of emotional terms and ability to convey feelings through appropriate use of those words has significant implications for the long-term well-being of many individuals with communication disorders. Goodyer (2000) states that emotional processing is important in influencing the nature of the disorder and the outcome for children with speech and language disorders. Children with language impairments may be slow to develop knowledge about abstract terms of emotion. Children with autistic spectrum disorders might be at particular risk in this area given the fundamental impairment of social and emotional development which they experience.

Syntactic comprehension is a fundamental language skill which emerges in the pre-school years. The typical pre-school child employs strategies of decoding (Chapman, 1978) to supplement primitive sentence interpretations. For instance, a word order strategy assigns the first noun in the sentence to the subject role (an unsuccessful strategy when interpreting a passive sentence). Young children also use world knowledge strategically in comprehension and, when forced to rely on insufficient syntactic knowledge, will choose the most pragmatically likely interpretation based on their experience. Strohner and Nelson (1974) found that whereas 3-year-olds consistently applied non-syntactic strategies in comprehension, resulting in many errors, 5-year-olds typically relied on syntactic information and correctly interpreted complex sentences. Typically developing children of 4 and 5 years of age can pay attention to syntactic form to differentiate sentence structures such as active and passive (Bridges, 1980). Between 7 and 9 years of age children show increased sensitivity to embedding and other syntactic features and the use of immature comprehension strategies is greatly decreased or eliminated (Paul, 1990).

Children with SLI have been shown to have persistent sentence-level comprehension difficulties, tending to continue to use immature interpretation strategies longer than their age peers (Conti-Ramsden et al., 1997; Paul, 1990). Tager-Flusberg (1981) showed that autistic children were able to use word order comprehension strategies but were less likely to use world knowledge strategies. The design of the Sentence Comprehension subtest rules out the use of such strategies by forcing a choice based on syntactic interpretation alone.

Inferential Comprehension

Comprehension development in older typical children is thought principally to consist of above sentence-level abilities such as inferencing. The Inferential Comprehension subtest of ACE 6–11 is designed to tap the child's understanding and knowledge about events in a specific context which are not explicitly stated but which must be inferred. The subtest requires a minimum standard of expressive ability (see administration instructions, page 17). Questions tap the use of basic world knowledge in making

inferences and aim to exclude items which might present problems for specific cultural or socio-economic groups.

The function of inferences is to 'fill in' information that is not explicitly provided and form connections amongst events in a text (a story, a conversation, etc.) in order to enable comprehension of the overarching organisation of the text. Children who show adequate sentence comprehension may still fail to draw inferences at story or text level, leading to incomplete understanding of sequences of events, cause and effect and character motivation. There is evidence for developmental trends in inferencing ability (Paris & Upton, 1976; Vieiro & Garcia-Madruga, 1997). Hudson and Slackman (1990) found that younger children could make contextual inferences (requiring the integration of existing world knowledge into the text) better than those that were wholly text-based (recoverable only from the information in the text itself), but that text-based inferencing improved with age. Developmental changes in the ability to infer do not appear to be due solely to increased memory capacity (Paris & Upton, 1976; Oakhill, 1984). Barnes *et al.* (1996) found developmental trends in verbal inferential skills up to 15 years of age. Oakhill's investigations of inferential skills in children's reading abilities suggested that one of the key characteristics of advanced readers is that they are good at making inferences (Oakhill, 1984).

Bishop and Adams (1992) showed that most children with language impairments are poor at understanding stories and constructing verbal inferences. Children who have SLI tend to perform like younger language-matched control children on an inferential task (Crais & Chapman, 1987). In a series of seminal papers on story development, Merritt and Liles (Liles, 1993; Liles *et al.*, 1995; Liles & Purcell, 1987; Merritt & Liles, 1987, 1989) concluded that SLI children's difficulties in processing stories do not appear to be due solely to poor memory or problems understanding individual sentences, but also in integrating information across the story and constructing a 'whole' view of it largely using inferencing. Weismer (1985) found that a group of SLI children performed poorly on tasks involving spatial and causal inferences compared to age peers but had similar abilities to 'typical' children matched on receptive vocabulary level. Other studies (Bishop & Adams, 1992; Conti-Ramsden & Gunn, 1986; Leinonen & Letts, 1997; McTear, 1985) have reported that children with pragmatic language impairments and children with autistic spectrum disorders have specific problems with the construction of inferences.

Naming

The Naming subtest of ACE 6–11 is an object picture naming task. Naming items were drawn from the 'age of acquisition lists' of the *MRC Psycholinguistic Database* (Coltheart, 1981). In typical children, vocabulary has been estimated to consist of as many as 14,000 words by 6 years of age (Michas & Henry, 1994), with many more words being available for comprehension than expression. Influences on naming in addition to age of acquisition include the nature of the naming task and intrinsic variables of the target word such as frequency, category type and abstractness (Morrison *et al.*, 1997).

Persistent word-finding difficulties are common in children with language impairments (Lahey & Edwards, 1999). Dockrell *et al.* (1998) found that 23% of children in language support services had word-finding difficulties. Three main categories of error have been noted in children with word-finding difficulties – semantic, functional and phonological (German, 1986; Lahey & Edwards, 1999). Other behaviours such as circumlocutions, groping, blending of phonological information from competing words and neologisms have been noted in SLI populations (Nippold, 1992). Ability in rapid naming tasks has also been suggested as a factor in reading development (Cronin & Carver, 1998). Children with dyslexia have been found to show reduced naming speed as compared to typically developing peers (Fawcett & Nicolson, 1994).

Kail *et al.* (1984) showed that children with language impairments recalled fewer words than their typical peers and were less consistent in their recall. Children with language impairments also made proportionally more 'semantic-associated' errors (that is, thematically related to the target such as key/lock) or errors which were phonologically related to the target (Lahey & Edwards, 1999). Lahey and Edwards' research suggests that, whereas many children with mixed receptive/expressive language impairments may have problems with storage of expressive vocabulary, some children (notably those with near normal comprehension but poor expressive development) appear to have specific retrieval deficits. There is some anecdotal evidence to suggest that children with slow development of expressive vocabulary but not a specific retrieval deficit will tend to make mainly semantic errors and to be consistent in their errors, whereas children with word-retrieval deficits may be less consistent and present a patchy pattern of errors across the test. Poor phonological short-term memory has been implicated as a potential explanatory factor in poor word learning of children with SLI (Gathercole, 1993).

Syntactic Formulation

ACE 6–11's Syntactic Formulation subtest includes a wide range of stimuli designed to elicit sentence structures of increasing complexity. The 'basics' of syntactic knowledge are in place by around age 5 (Crystal *et al.*, 1976). Karmiloff-Smith (1985) suggests that developments in the grammatical system beyond this age consist mainly in the diversification and specification of already established categories. Fletcher (1988) gives the development of adverbial usage as one such example. Rates of usage of syntactic forms also indicate that categories which may seem to have been 'acquired' earlier are still developing. Reed *et al.* (1998) note increased frequency of usage of indefinite pronouns/noun modifiers, personal pronouns, main verbs, negatives, conjunctions, interrogative reversals and wh-questions in typically developing children and adolescents aged 8 to 17, and Sutter and Johnson (1995) found that the narratives of 8-year-old children contained 'advanced' verb forms – past progressive, past perfect progressive, and past perfect – more frequently than those of 6- or 7-year-olds.

Older children who have language impairments may show persistent difficulties with aspects of expressive syntax which are acquired earlier by typically developing children (King & Fletcher, 1993; Van der Lely, 1994). Rice and her colleagues (Rice & Wexler, 1996;

Rice *et al.*, 1998) highlight continuing difficulties with morphology, including regular plurals and verb agreement, and suggest that the set of morphemes responsible for tense marking may constitute a clinical marker for SLI. In this section of ACE 6–11 the child is being asked to construct a sentence, based on a model and including specific (though relatively easy) vocabulary; that is, this subtest is a formulation task as well as a syntactic task. It might therefore be expected to be sensitive to the sorts of language-processing pressures felt by children with language impairments which are sometimes expressed as false starts and repetitions (Miller & Leonard, 1998) or other behaviours such as breaking up complex sentences into constituent clauses.

Semantic Decisions

This subtest of ACE 6–11 has been developed in order to examine word knowledge in the school-age child with language difficulties. The target words were drawn from the *MRC Psycholinguistic Database* (Coltheart, 1981) and increase in age of acquisition and abstractness across the subtest.

According to Clark (1995), lexical development in the school years focuses on elaborating semantic domains (for example, by adding terms and developing semantic relations between terms) and filling semantic gaps. Crystal (1987) emphasises the importance of assessing word learning as well as word knowledge; that is, in addition to assessing which words the child knows, it is critical in school-age children to assess what the child knows about these words (semantic development). ACE 6–11 takes into account the difficulty of *developmental* assessment of semantic knowledge as a complex interaction of experience, perceptual and conceptual development and language input.

Vocabulary development is one of the most vulnerable aspects of language development when the language-learning process is slowed (Gathercole & Baddeley, 1990). Therefore, assessment of word knowledge is likely to be an appropriate assessment for a wide range of children with language difficulties. Investigations of semantic knowledge in children with language impairments suggest they have difficulty acquiring semantic field boundaries and show slow semantic development (Landells, 1989). Children with SLI are also thought to be less adept at using syntactic information to infer word meanings (Bishop, 1997; Van der Lely, 1994).

It has been proposed that there may be a subgroup of children with SLI who are especially prone to semantic problems – 'semantic-pragmatic language disorder' (Rapin & Allen, 1987). Research has suggested that children who fall into this subgroup do indeed have a range of syntactic, semantic and pragmatic deficits (Adams & Bishop, 1989; Bishop & Adams, 1989). However, it is undoubtedly the case that many children with SLI have semantic and vocabulary deficits, and that this aspect of language disability is not confined to one subgroup (Bishop, 2000).

Non-Literal Comprehension

In the early school years children rapidly acquire knowledge of idiomatic language (Spector, 1996), with the ability to explain idioms still developing up to the age of 17 years (Nippold & Rudzinski, 1993). ACE 6–11 assesses this knowledge in the Non-Literal Comprehension subtest.

Levorato and Cacciari (1999) found that the level of semantic analysability of idiomatic expressions influenced the ability of 6- to 9-year-old children to understand them, and that younger children were more sensitive to the presence of an informative context than older children. They propose a developmental model of comprehension and production of figurative language, progressing from 'exclusive application of lexical and morphosyntactic knowledge to sentence comprehension' through use of contextual information first in comprehension, then in production, to the acquisition of a repertoire of idioms and metaphors and finally to a stage of being able to 'explain the meanings of linguistic expressions and to reason about the relation of form to content' (Levorato & Cacciari, 1997). When asked to explain idioms, younger children produced more literal paraphrases (Levorato & Cacciari, 1994), while older children (around 11 years) were often found to paraphrase idioms incorrectly but not to give literal interpretations (Cacciari & Levorato, 1998).

The type of task used to investigate children's comprehension of idioms affects results. Sahlen and Wagner (1999) found that the ability of 5- to 6-year-old children with language impairment to *define* idioms was related to 'most language comprehension measures', while ability to *recognise* idioms was related only to vocabulary comprehension, suggesting that definition tasks tap more general abilities. Spector found that typically developing 9-, 10- and 11-year-olds found idiom detection tasks significantly easier than explanation tasks (Spector, 1996).

Much research into the comprehension of non-literal language has focused on idioms. Older research focused on the interpretation of 'classic' idioms such as 'It's raining cats and dogs' and 'He broke the ice'. More recently the focus has shifted to the interpretation by children with SLI of lexical items with idiomatic characteristics, such as phrasal verbs (for instance, 'The aeroplane took off', 'He ran over the dog') and everyday non-literal usages (for example, 'She flew across the room', 'He drummed on the desk with his fingertips') (Kerbel & Grunwell, 1997).

Understanding figurative language is among the common language difficulties of secondary school pupils with SLI (Miller & Roux, 1997). Adolescents with specific developmental language disorder are less able than language-matched and age-matched comparison groups to rule out literal interpretations in the presence of multiple meanings (Rinaldi, 2000). Kerbel and Grunwell (1998) found that children with semantic-pragmatic difficulties performed more poorly than typically developing children and children with other types of language impairments on interpreting idioms appropriately

while acting out a story. Vance and Wells (1994), however, found no difference between a group with semantic-pragmatic difficulties and a group with language impairments but who had no semantic-pragmatic difficulties on an idiom comprehension task. Happé (1995) found the comprehension of metaphor, simile and irony in children with autism and children with learning disability to be closely related to theory of mind ability, leading her to suggest that 'understanding intentions is central to normal communication, whether literal or figurative in nature'. Indeed, idiom understanding in typically developing pre-school children was found by Wagner (1999) to be linked to performance on a theory of mind task and measures of semantic-lexical skills as well as receptive grammar.

Narrative

The Narrative subtest in ACE 6–11 is a story retelling task. Naremore *et al.* (1995) and Merritt and Liles (1987) agree that story retelling as a task has advantages over spontaneous story generation in that it is easier to administer and score and generally more likely to provide the child with SLI with support during the task.

The ability to understand and generate simple stories begins to develop in the pre-school years. In the early school years developments such as syntactic elaboration, discourse styles in stories and in interactions, and exposure to a variety of literature influence the way in which children develop story telling abilities. Typical 7-year-old children are able to tell stories with a plot, a beginning, some characters, and a resolution. Story length increases rapidly in the school-age years, with expansion of conjunctions, locatives and other more complex notions such as causal statements and comparatives (Sutton Smith, 1986). At the same time sequential ability and sentence connectivity in narrative also improve (McCabe & Peterson, 1985; Peterson & McCabe, 1987). Ripich and Griffin (1988) found that use of cohesive devices increases and the number of reference errors decreases between the ages of 9 and 12. Children between 4 and 7 years of age can vary their use of discourse markers according to the context (Kyratzis & Ervin-Tripp, 1999), demonstrating increasing control over the pragmatic dimensions of narrative.

Narrative deficits are common in children with language impairments and can manifest themselves as an impoverished amount of information recalled; limited sentence length in comparison to sentence formulation in a more constrained context (such as the Syntactic Formulation subtest of ACE 6–11); the inability to structure a sequence of ideas into connected discourse in the absence of overt grammatical errors; or all three of these. Copmann and Griffith (1994) found that subjects with language impairment remembered significantly fewer events correctly and omitted more events than either typical children or those with specific learning disabilities. Merritt and Liles (1989) found that the retold stories of children with language impairments are shorter, have fewer cohesive ties and include less of the information in the original story than children who are developing language normally. Naremore *et al.* (1995) proposed that a story retelling task closely reflected children's performance on language tests overall and found that children who performed poorly on language tests tended to reproduce less information

in their stories even when they were allowed to keep the story pictures as an aid to memory. Naremore *et al.* (1995) suggest that children with SLI retell such stories as though 'they had perceived the original story as a series of unconnected utterances'.

Other measures within a narrative task, in addition to amount of information elicited, have been shown to be sensitive to the difficulties of children with language impairments. Liles *et al.* (1995) found several aspects of the structure of texts to be sensitive measures of language impairment, including measures of cohesive adequacy and grammatical complexity. Children with language impairment generally tend to show impairment in all discourse measures, 'including both language and information domains', as compared to age-equivalent typically developing children (Chapman *et al.*, 1997). Narrative ability in the pre-school years has been shown to be one of the few robust predictive measures of language outcome in the later school years (Bishop & Edmundson, 1987). The measurement of above sentence-level abilities therefore has the potential to provide the practitioner with rich information regarding the language abilities of the child with language impairment.

2. Administration instructions

2.1 General guidelines for administration

ACE 6–11 contains general methods of testing which will be familiar to most speech and language therapists, psychologists and teachers. It is of great importance, however, that **the tester should be familiar with the instructions for scoring before using the test** as there are specific instructions for eliciting syntactic structures and for allowing practice items which will be different to those employed in other language tests. Once the tester is familiar with ACE 6–11 procedures it is not necessary to use this Manual to administer the test since all the practical administrative instructions are printed in the Record Booklet or the Picture Book, though it will be essential to have it available for support.

In particular, before the tester analyses the Syntactic Formulation and Narrative subtests, it is strongly recommended that time is taken to study the scoring guidelines for these subtests. Scoring of these subtests requires familiarity with some basic language analysis concepts. Numerous examples are provided in the scoring instructions (pages 40 to 65) and it is usually possible to match a response to an example. A good quality audiotape recorder and playback facility is required for the Narrative subtest and may be required for the Syntactic Formulation subtest if responses cannot be transcribed immediately.

2.1.1 The Main Test and the Extended Test

ACE 6–11 consists of a set of five main subtests that make up the Main Test and two additional subtests, which are optional and together with the main subtests make up the Extended Test. Whether the Main Test or the Extended Test is being administered, the subtests should be administered in the order in which they appear in the Record Booklet. The items in each subtest should also be administered in the order in which they appear in the Record Booklet (except where stopping rules apply – see Section 2.1.6, page 20). Where a smaller number of individual subtests only is being used, these subtests may be administered in any order. It is not necessary to complete all of the test in one sitting, but the sessions should be completed if possible within one week.

The advantage of having two versions of the test is that this allows the practitioner flexibility in length of testing where time is limited or where the child is unable to participate in aspects of the testing situation. The Extended Test contains testing methodologies which differ from the more traditional approach of picture selection. In the Non-Literal Comprehension subtest, interpretation of idiomatic expressions which are read aloud to the child is required. Some children may not be able to complete the Non-Literal Comprehension subtest due to limitations of memory (but not due to reading restrictions, as this is not a reading subtest); the non-obligatory status of the subtest allows the practitioner to omit it if this is the case. Nevertheless, there are many advantages to administering the Extended Test and including the Non-Literal Comprehension subtest, as many children of school age with language impairments have difficulty with this aspect of language. The Narrative subtest (which is the other additional subtest in the Extended Test) is a particularly valuable test of the child's ability to integrate information and to produce connected discourse. It is recommended that, wherever possible, both of these additional subtests are administered. Feedback from clinicians has confirmed this and also indicated that the Narrative subtest is of a reasonable length to include in this sort of testing situation. It was felt to be important to allow the practitioner the option of not carrying out this subtest in the case of failure of recording equipment or time limitations.

2.1.2 Giving the test

Testing should be carried out in a quiet room, free of physical and noise distractions. The **Picture Book should be stood up using its stand for the entire test** so that the tester can easily read the instructions and the child can only see the pictures. The tester needs to position her/himself so that s/he can see the instruction page facing the stimulus page in the Picture Book clearly and the child is square on to the stimulus page. Care should be taken to obscure any prompt or text on the instructions page from the child.

Spoken stimuli and instructions are printed in *bold italic* in this Manual and in **bold** in the Picture Book.

2.1.3 Feedback

Throughout the assessment, a correct response to a **practice item** should be given brief **positive feedback** (e.g. 'That's right/Good'). **Neutral, encouraging feedback** should be given on **test items** (e.g. 'Thank you/Now let's try the next one') but it is not essential to do this all the time.

2.1.4 Repetition of items

ONE repetition of an item is allowed only if:

● a physical or noise distractor made the item inaudible or distracted the child;

or

● the child specifically asks for a repetition. If the child repeatedly requests repetition, do not allow additional repetitions, but make a note of this in the Record Booklet.

Indicate that the item was repeated by putting a tick or a '1' in the repetitions box on the Record Booklet for that item.

2.1.5 Recording responses and scoring

Responses to items which have four picture choice elements are set out in the following manner and responses should be recorded accordingly. The responses in the Record Booklet are presented from the **child's view**, as demonstrated below.
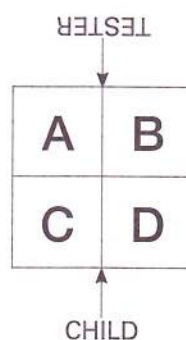
Responses to all subtest items are recorded in the Record Booklet. The Narrative subtest requires the tester to make a quick (that is, orthographic not phonetic) transcript of a short story from an audiotape recording (examples are given in the scoring guidelines in Section 3.1.7, pages 47 to 65, and in the case studies, Section 4, page 81). The Syntactic Formulation and Inferential Comprehension subtests require the tester to write down responses to specific stimuli. It should be possible to transcribe these responses without audio-recording, but this may be used if required.

Two subtests use Answer Templates for scoring (Sentence Comprehension and Semantic Decisions). These are transparencies that fit on top of the Record Booklet and allow quick scoring of the child's responses.

Separate scoring guidelines are provided for each subtest (Section 3.1, page 35). It is recommended that testers read through the scoring guidelines before administering subtests, to familiarise themselves with behaviours to be recorded.

2.1.6 Stopping testing

The subtests in ACE 6–11 are designed to be administered in their entirety. Most subtests consist of short sets of items or a whole task which cannot be broken down into separate items easily. In these cases it is not possible to stop testing as the child may continue to produce information which will be important in the scoring procedure. However, it is permissible to stop three subtests early since they consist of sequences of items in facility order. These subtests are:

- Naming

- Semantic Decisions

- Non-Literal Comprehension.

If, **after 10 items** have been administered in each of these subtests, the child has a score of 0 or 1 only, the subtest may be stopped and the child's score (0 or 1) recorded as the final raw score. In order to do this the tester will need to keep track of the number of correct responses during testing. This can be done by looking closely at the responses on the Record Booklet; the correct responses for the Semantic Decisions and Non-Literal Comprehension subtests are followed by a full stop, thus:

correct response

7	mend	mix	repair.			
		damage	recover			

All other subtests should be administered in their entirety.

2.1.7 Special cases

Although the standardisation sample includes a proportion of children from ethnic minority groups, the children on whom ACE 6–11 was standardised were not learners of English as a second language. Practitioners may wish to use parts or all of the test in English with children whose first language is not English. However, such children's results should be interpreted cautiously. In these cases the **language elicited should only be described in qualitative terms and should not be compared to the norms** presented in ACE 6–11.

Presentation of ACE 6–11 in a language other than English through direct translation is not possible. ACE 6–11 was constructed with reference to orders of acquisition in English and also includes language-specific nuances and idioms which will not be equivalent in other languages.

2.2 Main subtests: administration of each subtest

2.2.1 Sentence Comprehension (SC)

This subtest examines the child's ability to understand sentences of increasing syntactic complexity, and also assesses verbal concepts in four main areas – quantity, space, time and emotion. The child is given a spoken stimulus and asked to select a picture to match it or to select a response from a display of words read aloud. On two occasions only the child is required to produce a spoken one-word response to a stimulus. The Sentence Comprehension subtest is the first subtest to be administered. For this reason it was felt to be important to include items which would allow even children with very low average abilities the opportunity to succeed on some items. Thus the subtest has a broader 'floor' than other subtests. This was felt to be important in encouraging the child and motivating him or her to carry on.

Instructions for items 1–10

The child is required to point to the correct picture from a choice of four. Tick the child's response in the Record Booklet.

Practice item 1

Say: **We're going to look at some pictures together. I'm going to say a sentence and I want you to show me the picture it goes with.**

Open the Picture Book at the practice item for Sentence Comprehension. Allow the child to look at the four pictures.

Point to each picture in turn as you say: **Let's have a look at all the pictures.**

Then say: **Can you show me which pencil case is empty?**

If the child points to the correct picture, give brief positive feedback. If the child makes no response or gives an incorrect response, show the child the correct picture and say: **In this picture the pencil case is empty.**

Begin the subtest.

Item 1

Say: **The helicopter flew above the clouds.** Note the child's response on the Record Booklet by circling the letter corresponding to the picture the child chooses.

If the child does not respond, say: **Show me which one that is**. This prompt may be used on all items up to practice item 2.

Items 2 and 4

Write the day that the child says in the response box, making a note of the name of the current day to enable later scoring.

Items 3 and 5–10

Administer these test items in the same way as item 1.

Instructions for items 11–15

Items 11–15 differ from previous items because they have a single picture that is intended to support comprehension rather than form a choice. The child is asked to listen carefully to words read aloud, which are also printed on the appropriate page in the Picture Book, and to choose a response from among these words.

Practice item 2

Say: *Becky broke her favourite toy. How did she feel, sad, hungry, cheerful, sleepy?* Point to the words as you say them in the order A to D (as shown below).

TESTER

A	B
C	D
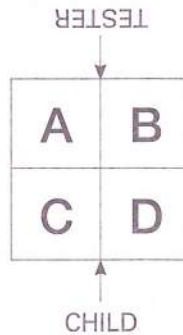
CHILD

If the child does not respond, point to the right word and say: *She felt sad*, emphasising the last word.

Continue the subtest.

Item 11

Say: *I want you to listen carefully now. I'm going to ask you how Sam and Neeta felt about some things that happened to them. Let's have a look at the first one. I'll read the words for you.*

Then say: *The other children had gone off and left Neeta. They wouldn't let her join in their games at playtime. Neeta felt ...* Point to each word and say: *excited, contented, poorly, miserable.*

If the child does not respond, prompt by saying: *Can you tell me how she felt?*

Items 12–15

Repeat the procedure described in item 11.

Instructions for items 16–27

Practice item 3

Pointing to each picture in turn, say: **Let's have a look at all the pictures. Can you show me 'The boy is eating a banana'?**

If the child points to the correct picture, give brief positive feedback. If the child points to the incorrect picture, point to the correct picture and say: **Look, the boy is eating a banana.**

Item 16

Say: *'She gave her cat the food'.*

If the child does not respond, say: **Show me which picture that is**. This prompt may be used for items up to and including item 27.

Items 17–27

Repeat the procedure for each item.

Instructions for items 28–35

Follow the instructions on the page facing you in the Picture Book. These items have two choices of response only. Circle the child's response on the Record Booklet.

Note: These items are 'paired' and are scored differently from the preceding items – the child must answer *both items* in a pair correctly to score a point. See scoring guidelines for details (page 35).

2.2.2 Inferential Comprehension (IC)

This subtest looks at the child's ability to infer information about a scenario consisting of a single complex picture and a short description. The child is shown a picture that sets the scene for the story. To establish some basic facts the tester reads the child a short passage. The tester must avoid stressing any parts of the passage as this may influence the child's responses. The child is then asked a series of questions relating to the scenario.

Instructions for all items

Note: Certain items have specific instructions also (described in the next section).

Present the picture and follow the instructions below (these are reprinted in the Picture Book on the page facing the tester).

Say: *What do we call someone who goes into other people's houses and steals things?* (Expected response: burglar or robber.)

If the child does not respond, say: *We can call them a 'burglar'.*

Say: *So when a burglar does that, we call it a 'burglary'. There was a burglary in this house last night. The police need to find out who did it. There are some clues in this picture. Look at the picture and listen – I'm going to tell you some useful things.*

Say: *The family called the police station, and the police went round to see what had happened. The house looked normal from the front, but at the back of the house the kitchen window was broken. A bit of white material was hanging off the broken glass. Inside the kitchen, there were muddy footprints on the floor and a brick under the window. There were also a few drops of blood on the floor.*

'Has anything been stolen?' the police asked the family.

'Only my watch – I left it by the sink' said the father.

The neighbour said she had heard breaking glass. She had also heard the dog barking and growling, and someone shouting 'Ow!'.

Leave the picture on the table for the child to refer to. Ask the practice questions and provide answers if the child does not supply an appropriate response. Then administer the whole set of questions, noting down all the child's responses in the Record Booklet.

Specific instructions for particular items

Item 3

The tester should stress the word 'back' in 'Why did the burglar break into the *back* of the house?'.

Item 4

The tester should stress the word 'only' in 'Why do you think the burglar *only* took the watch?'.

Items 5–9

Marked * on the Record Booklet, these items require more reflection. The target is *at least two different responses* and the items score up to 2 marks each (see scoring guidelines, page 38). The following prompts can be used to elicit more information from the child if necessary.

Item 5: 'What clues will the police find about who broke in?' If the child only produces one response, prompt *once* by saying: ***Can you think of any other clues?***

Item 6: 'How does the family feel now?' If the child only produces one response, prompt *once* by saying: ***How else might they feel?***

Item 7: 'Why would someone steal something?' If the child only produces one response, prompt *once* by saying: ***Can you think of any other reasons?***

Item 8: 'What will the family do now because of the burglary?' If the child only produces one response, prompt *once* by saying: ***Can you think of anything else they will do?***

Item 9: 'Should all theft be treated in the same way?' If the child responds by saying 'Yes' or 'No' only, prompt *once* by saying: ***Why do you think that?***

2.2.3 Naming (NA)

The aim of this subtest is to examine the expressive vocabulary knowledge of the child and to investigate word-finding abilities. The child is presented with pictures of objects and asked to name them.

Instructions for all items

Practice item 1

Say: *We're going to look at some pictures together. I want you to tell me the name of the thing you see in the picture. We'll practise that together first.*

Present picture.

Say: *Can you tell me what this is?*

If the child does not respond, say: *It's a boat*, and point to the picture. Say: *What is it?*, and wait for the child's response. Whether or not the child responds, move on to practice item 2, repeating the procedure as for practice item 1.

Items 1–28

Then administer the test items in the same way, noting down the child's responses in the Record Booklet. **Note:** Items 9, 15, 20 and 21 have specific instructions as listed below.

A verbal prompt is not obligatory if the child appears not to need one.

Specific instructions for particular items

Items 9 and 15

These items require a different wording: *Can you tell me who this is?* or *Who is this?*

If the child does not respond with the name of the job, prompt by pointing to the man and saying: *What's this man called?*

Item 20

This item requires a different wording: *Can you tell me what these are?* or *What are these?*

Item 21

The tester should point to the equator and draw his/her finger along it.

2.2.4 Syntactic Formulation (SF)

This subtest taps the child's ability to construct sentences and phrases based on a practised model. The child attempts constructions of increasing syntactic complexity.

Instructions for all items

There are two test items for each type of syntactic construction presented. Therefore, each construction has:

a) a **practice item** designed to model what is required; and

b) **two test items**, where only the picture stimulus and a lead-in from the tester is given.

Some items require the child to complete a sentence which is begun by the tester. When reading these stimuli, the intonation used should show that the sentence is incomplete.

If the child does not respond to a test item, s/he may be encouraged once by giving the prompt indicated in the Picture Book for that item. If there is no specific prompt for the item, the child may be prompted with: *Your turn.*

The instructions and lead-in sentences for each item are printed in the Picture Book. The instructions for the first practice and test items are given here as an example.

Introduce the subtest by saying:
We're going to talk about some pictures. First I'll say something about the picture and then it's your turn. I'll help you with the first one.

First practice item
Show the picture.

Say: *We are going to talk about what some people did yesterday. You look at the picture and tell me what they did.*

Point to the picture and at the same time, with intonation that shows the sentence is incomplete, say: *Yesterday ...*

If the child produces the correct construction, give positive feedback and move on to the first test item.

If the child does not respond or does not produce the expected construction, say: *Yesterday she dropped an egg.*

Then say: *Yesterday she dropped an egg,* pointing to the relevant parts of the picture as you do so.

Items 1 and 2

Introduce test items 1 and 2 by saying: ***Now let's do some more like that.***

For items 1 and 2, point to the picture and at the same time, with intonation that shows the sentence is incomplete, say: ***Yesterday ...***

If the child gives no response, encourage once by saying: ***Can you tell me about it? Yesterday ...***

Faithful recording of the child's exact responses is essential to enable accurate scoring.

Items 3–16

Continue with the rest of the test items (and the practice items that precede each pair of test items), *using the exact wording in the Picture Book.* Note down the child's responses in the Record Booklet.

2.2.5 Semantic Decisions (SD)

This subtest looks at understanding of word meaning. The child is presented with a written stimulus word which is read aloud by the tester. S/he is asked to select from a display of words (read out by the tester) the word that is closest in meaning to the stimulus word. This is not a test of pure synonym judgement and the child should be encouraged to look or listen for a word that is **close in meaning** to the stimulus rather than one which means exactly the same.

Test items consist of a stimulus word printed at the centre of the page. Four words are arranged around the stimulus word. One word is closely related in meaning to the stimulus word (here called a synonym, S, for convenience); the other words comprise a thematically related item (T), an item with an opposite or very different meaning (here called an antonym, A), and a distractor with phonological or visual similarity to the stimulus (P/V). The four items are arranged randomly on the page.

All items should be read out in order from position A, through B and C to position D on the page.

TESTER

A		B
	stimulus	
C		D
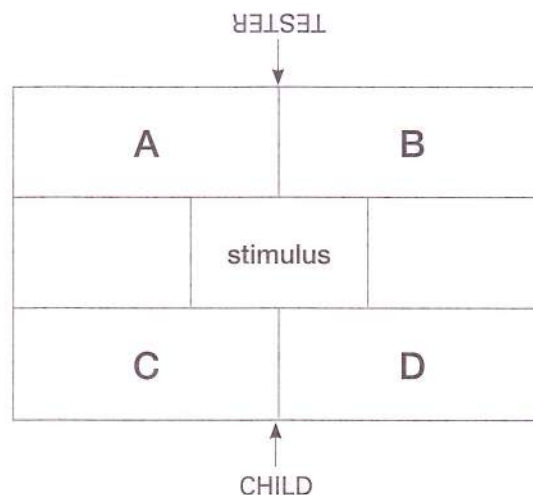
CHILD

Instructions for practice items

Practice items are designed to familiarise the child with the subtest method gradually via pictures. This is especially important, as the test items contain no pictures. The child needs to be shown clearly what sort of word to search for.

The first two practice items consist of words and pictures and the third and fourth practice items consist only of words.

Practice item 1

Pointing to the appropriate picture, say: ***Here is a* bee. *We're going to look for a word which means nearly the same thing as 'bee'. Let's look at the words.***

Read aloud and point to each word in turn in the sequence described above. Say: *wasp, worm, tea, garden.*

Then say: ***Show me which word here is like bee.***

Pointed responses are allowed as well as spoken ones.

If the child responds correctly (by pointing or speaking), say: ***Yes, wasp is like bee. They are nearly the same thing.***

If there is no response repeat the instructions.

If there is still no response, say: ***I think a bee is like a wasp, isn't it? It's not like a worm, a cup of tea or a garden.***

Practice item 2

Pointing to the appropriate picture, say: ***Here is the word 'coat'. We're going to look for a word which means nearly the same thing as coat.***

Point to each picture in turn and say: ***cart, vest, jacket, shoes. Which of these words is like coat?***

If the child responds correctly, say: ***Yes, jacket is like coat. They mean nearly the same thing.***

If the child does not respond, repeat the instructions and say the words again.

If there is still no response, say: ***Look, this word 'coat'*** [point] ***means nearly the same thing as jacket*** [point].

Practice items 3 and 4

Say: ***Now let's do the same with this one.***

Repeat the procedure as for practice item 2, indicating the word choices in a similar way.

Instructions for items 1–20

Item 1

Say: ***This word is 'laughter'*** [point]. ***Which word means nearly the same thing as laughter?***

Point to and read out all four words: ***sadness, giggle, face, ladder***, and wait for a response. Tick the child's response in the Record Booklet.

Items 2–20

Administer items 2–20 in the same way.

2.3 Extension subtests: administration of each subtest

2.3.1 Non-Literal Comprehension (NLC)

In this subtest, the child is presented with sentences containing common phrasal verbs which can be interpreted in both a literal and a non-literal way. (The contexts for presentation are biased in favour of idiomatic interpretations; however, the literal interpretations are still pragmatically possible.)

The subtest has two parts. In Section 1, the child is asked to choose the picture that represents the correct (idiomatic) interpretation of a given sentence. In Section 2, the child is asked to choose the correct interpretation of a sentence from a set of four written alternatives (which the tester also reads aloud). Section 2 is designed to tap the linguistic abilities of older children and therefore the stimuli used are less easily 'pictureable' (hence the use of written stimuli).

Instructions for Section 1

Say: *I'm going to show you some pictures* [indicate all four pictures] *and tell you about one of them. Listen carefully and point to the picture that goes best with what I say.*

Practice item 1
Say: *My uncle is a pilot. Last week on his day off he dropped in for tea.*

For the practice item *only*, if the child does not respond or responds incorrectly, show him/her the correct picture and discuss the meaning. Say: *It's this one, because 'dropped in' means he came to the house.*

Items 1–7
Say: *Now let's try some more.*

Present test items 1–7 following the instructions printed in the Picture Book. Tick the child's responses in the Record Booklet.

Instructions for Section 2

Say: *Look at this sentence and listen while I read it to you* [indicate the written sentence]. *Then choose the best meaning for the sentence* [indicate the written meanings].

Say: *Ali was queuing at the post office when a woman* **pushed in***. Does this mean:*

a) *a woman pushed Ali from behind?*

b) *Ali pushed a woman?*

c) *a woman went to the front of the queue without waiting?*

d) *a woman pushed her suitcase and it hit Ali's leg?*

For the practice item *only*, if the child doesn't respond or responds incorrectly, show him/her the correct meaning and explain it, saying: ***It's this one, because 'push in' means go in front of someone.***

Items 8–15

Say: ***Now let's try some more.***

Present test items 8–15 following the instructions printed in the Picture Book.

2.3.2 Narrative (NP and NS/D)

The Narrative subtest is a story retelling task intended to give an indication of aspects of production considered to be important in distinguishing children with language impairment from children with typically developing language. It explores the following aspects:

1. Propositions (NP)

   - how many of the core elements of the story the child includes in his/her narrative.

2. Syntax/discourse (NS/D), made up of:

   - syntactic complexity – the child's use of a range of grammatical structures in retelling the story. A primary aim of the Narrative subtest is to give clinicians information about the child's ability to use structures spontaneously, complementing the information gained from the Syntactic Formulation subtest;

   - discourse features – the child's use of later-developing linguistic constructions, some of which are characteristic of narrative style.

Instructions

The story in the Picture Book is accompanied by pictures that are shown as the story is read aloud by the tester. The child then retells the story, using the pictures for support. The child's version of the story is audiotaped and transcribed, and the transcript is then analysed for propositions, syntax and discourse features.

After setting up the audio-recording equipment, start the subtest by opening the Picture Book at the first Narrative subtest page and standing the book up using its stand for the entire test. This is to ensure that the child cannot read the story from the facing pages. The first page of the narrative subtest facing the child is blank. Do not show the first picture to the child until you have explained the procedure. (The instructions below are also printed in the Picture Book.)

Say: *Now we're going to look at a story. The story's about a monkey in the forest. First, I'm going to tell the story, and you're going to look at the pictures and listen hard. Then, when I've finished, I want you to tell me the story, in your own words.*

Repeat or modify these instructions as necessary until you are confident that the child understands the task.

Read the story to the child from the pages facing the pictures in the Picture Book (ensuring that the child cannot also read the story).

When you have finished reading the story, turn back to the beginning of the subtest, Picture 1, switch on the tape recorder and say: *Right. Now it's your turn. Tell me the story in your own words. Ready? Go!*

If the child has difficulty getting started, you can add further encouragement by saying: ***Tell me what happened at the start of the story.*** Do **not** repeat the whole story. As usual, note any prompting in the Record Booklet. Allow the child to turn over the pictures as he or she wishes.

When the child has finished, give positive feedback.

The story should be accurately transcribed as soon after the session as possible, ideally on the same day.