

Cambridge Assessment



Language Accessibility

What makes language difficult to understand?

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Language Accessibility

There are linguistic and conceptual structures which increase the processing demands on the reader thus reducing the accessibility of the text. It is possible to reduce demand by avoiding potential problems through language simplification and the use of natural language.

Framework of Criteria

Syntax

As a general rule, it is better to simplify sentence structures where possible as it is more difficult to process embedded clauses. It is important to ensure that meaning is not compromised. In some cases it may be necessary to use complex sentences to maintain natural language.

e.g. The racing car went out of control hitting the barrier several times before it came to a stop on a grassy bank.

The racing car went out of control.
It hit the bank several times.
Then it came to a stop on a grassy bank.

The second and third sentences could be joined to avoid the use of the pronoun it. It hit the bank several times then came to a stop on a grassy bank.

It is better to avoid long qualification phrases where possible, especially nominal phrases.
e.g. The boy [with the heavy books in his school bag] hurried home.

Precise use of a range of cohesive devices improves textual accessibility.

Subject / verb agreement is important for cohesion.

Articles — a the / this etc. are used to classify, identify and quantify. They clarify reference chains.

Precise use of pronouns is important for clarity of reference and to avoid ambiguity.
e.g. I carried a parcel and a bag. It was heavy.

Conjunctions aid cohesion but can cause processing difficulties. This is often the case with logical conjunctions such as however and nevertheless where there is an element of contradiction.

e.g. Some people agree with that point of view, however, others do not.

Where ellipsis is used to avoid repetition it should be clear which words have been omitted.
e.g. He went by bus and later by train.

If judgement is necessary there can be ambiguity or confusion.

Verbs

In some cases correct tense is an issue of consistency. Tense can also be used to structure the narrative of a question.

e.g. A bottle held 1% litres of water. John drank % litre. How much is left?

The use of the past followed by the present clarifies the time frame of the question.

The active voice is a simpler construction and is easier to process than the passive voice.

e.g. The dog chased the cat. The cat was chased by the dog.

The conditional can cause uncertainty and tense confusion. The word if normally means provided that.

e.g. If the rain stops we'll go for a walk.

However, there is a range of types of conditional. If can also mean when, implying a future action.

e.g. If the 2kg cake is cut into 4 equal pieces, what is the weight of each piece of cake?

Modals such as can, could, may, might can cause problems with interpretation because they express subtle, different degrees of uncertainty. They can refer to ability, permission, prediction.

e.g. He might leave. He should leave. He must leave.

Meaning

Fore-grounding the theme of a sentence improves accessibility and so it is better to place the main idea at the beginning of the sentence followed by the main verb and then the rest of the sentence.

e.g. Mrs Brown realised she had made a mistake when she got on the train.

Rather than, When she got on the train, Mrs Brown realised she had made a mistake.

Over elaboration of context can obscure the focus of the question. Even in short questions it is possible to cut out extraneous information and reduce processing demands.

e.g. Sam read 34 pages of her [story] book [during the weekend]. Lara read 78 pages of her [favourite] book [about animals during the weekend]. How many pages did they read altogether?

It is easier to process positives rather than negatives. Where the word not is used, it can be overlooked when reading under pressure, especially if the sentence is plausible without.

Even partial negativity or words with negative effects can cause difficulty.

e.g. It is unlikely that it will rain.

Not many people enjoy washing up.

The use of ambiguous words can cause processing problems.

e.g. The stars were bright in the sky.

The boy who passed his test was bright.

Misleading syntax can also cause ambiguity.

e.g. He walked from the shop to the car which was only five minutes from the beach.

Identifiability is an important issue as text is easier to understand if people or objects are clearly distinct from each other. If a question involves a boy and a girl, it is easier to process than if it involves two people. The clarity of reference chains and the use of distinct pronouns improve accessibility.

Vocabulary

Processing difficulties arise with the use of unfamiliar words, technical vocabulary, jargon and slang. The vocabulary and grammatical structures of task instructions can cause problems. Questions that ask for recall and application of facts are easier than those that require higher levels of thinking.

Relationships

Spatial and temporal relationships involve concepts or features of content. Spatial relationships are likely to occur where diagrams / graphics are involved. Clarity in textual and visual explanations of relationships is important to avoid ambiguity. It is easier to understand temporal relationships if you are told about a sequence of events in chronological order.

e.g. As she walked in the wood, she picked flowers for her mother and held them in her hand.

Rather than,

She held flowers in her hand which she had picked for her mother as she walked through the wood.

These criteria cover a range of linguistic and conceptual issues which have been identified through linguistic research as causing processing difficulties. By being aware of the potential processing problems when writing or translating items, it is possible to reduce the demands of questions thus making them more accessible.

Readability scales

This short sentence needs a reading age of less than nine years.

This longer sentence, which contains an adjectival clause and several polysyllabic words, has a reading age of more than sixteen years.

Readability scales can be used to assess reading age and these are based on average word and sentence lengths. There are many such tests, for example the Gunning 'FOG' test.

Select samples of 100 words, normally three such samples.

(i) Calculate L, the average sentence length (number of words ÷ number of sentences).

Estimate the number of sentences to the nearest tenth, where necessary.

(ii) In each sample, count the number of words with 3 or more syllables.

Find N, the average number of these words per sample.

The Reading Age = $[(L + N) \times 0.4] + 5$ years.

This 'FOG' measure is suitable for secondary and older primary age groups.