Title	Testing Language Comprehension
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Testing Language Comprehension

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Since the time of Bloom and his associates (1956), construction of achievement test items has often been done within the framework of the Taxonomy of Educational Objectives. Comprehension is inferred from the capacity to deal with an 'abstraction' in a form somewhat different from that in which it was originally prescribed. Bloom further subdivided comprehension into three sublevels: translation, interpretation and extrapolation. A number of studies have been made in constructing language comprehension items since the time of Anderson (1972) who proposed a hierarchical system whereby questions testing language comprehension were categorised into various levels of complexity.

This is a study on how Primary pupils respond to questions testing various levels of comprehension based on simple comprehension passages. The design of the questions is based on a modified version of Anderson's (1972) hierarchy, with Bloom's (1956) Taxonomy in view.

Question Types

Verbatim Question (VQ)

This question type is based on statements from the passage taken in either a literal word-by word form or a rearranged form without changing the meaning of the original passage. In Bloom's terminology, it tests the translation level.

Paraphrased Question (PQ)

This question type is based on paraphrased statements found in the passage. Such statements may be a summary of two or more of the original sentences in the passage. It tests Bloom's interpretation level.

Low Inteference Question (LIQ)

In this question type, pupils have to make certain interferences or conclusions based on a group of statements found in the passage. Such interferences are found within the passage. This type of question tests the pupil's ability to extrapolate.

High Interference Question (HIQ)

Unlike the LIQs, pupils have to make a subjective judgement on their own as such conclusions are not found within the passage.

The following passage and questions illustrate the hierarchy of comprehensive questions:

> Jia-ying heard strange noises in her room at night. She though it might be a dragon. When she peeped outside the door, she saw her kitten playing with a ball in the faint light coming from her window.

The dragon Jia-ying saw was in a

1) book *2) dream 3) room 4) movie

Question type: VQ

Noises were made by Jia-ying's

1) toys *2) kitten 3) friend 4) dragon

Question type: PQ

The story takes place while Jia-ying is

*1) in bed 2) at school 3) at dinner 4) in the kitchen

Question type: LIQ

The light probably came from

1) a fire 2) the sun 3) a candle *4) the moon

Question type: HIQ

Test administration and analysis

The test on language comprehension consists of a number of passages with accompanying questions based on the hierarchy of comprehension question types. There are altogether 40 comprehension questions. The test was administered to 63 Primary Three and 77 Primary Four pupils. Classical item analysis was used to ascertain the validity of the question-type based on the assumption that with increasing complexity of the comprehension levels, the item facility should decrease accordingly.

Results

For economy of space, the results shown are based on comprehension questions for two passages only:

Passage I

> Ailing's dog was sick. All day long, it just slept. The animal doctor gave Ailing some pills to put in Spot's food. In three days, Spot was playing again.

VQ1 Pills were put in the dog's

1) teeth *2) food 3) paw 4) water

LIQ1 The dog's name is

1) Sleepy 2) Ailing *3) Spot 4) Playful

HIQ1 Ailing is a good

*1) owner 2) doctor 3) neighbour 4) dog

Table 1 shows the proportion of P3 and P4 pupils getting the items correct. A high proportion such as .84 for P4 pupils responding to Item VQ1 will indicate a relatively easy question. A difficult question will be indicated by the low proportion of pupils getting the item correct. It can be seen that for both levels, the difficulty of the items increases progressively from Question types, VQ to HIQ. This shows the separation of different comprehension levels as tested by the respective question type.

Table 1. Proportion of pupils getting the items correct for passage I

Item	P3	P4
VIQ1	.84	.88
LIQ1	.76	.72
HIQ1	.52	.54

Passage II

Dear Billie,

Thanks for the book. It was my favourite kind of story. I read almost all of it while I was still in the hospital. The best part was when the colt was born. I've just finished reading the rest of the book. I should be back to school in another week. See you there.

Your friend,
Leslie

VQ2 Billie gave Leslie a

1) pen *2) book 3) ball 4) horse

LIQ2a When did Leslie get a present?

1) After going back to school
*2) While in hospital
3) Before becoming ill
4) After getting home

LIQ2b Billie must be Leslie's

*1) school-mate 2) brother 3) aunt 4) uncle

HIQ2 Leslie must like to read about

1) hospitals 2) school *3) animals 4) doctors

Table II shows the responses of the pupils to the items in Passage II showing, in particular, the differences in difficulty levels between the low interference and high inference items.

Table II. Proportion of pupils getting the items correct for Passage II

Item	P3	P4
VQ2	.95	.98
LIQ2a	.84	.84
LIQ2b	.91	.89
HIQ2	.40	.51

Conclusion

This simple study shows the relevance of constructing lower and higher order comprehension questions to test pupils' comprehension ability at various levels. The passages shown and the kinds of items constructed are examples which the classroom teacher can use in developing similar items. The differences in difficulty levels between the low inference and high inference items suggest that the proportion of these items types will need to vary according to the ability levels of the class.

References

Anderson, R.C. How to construct achievement test to assess comprehension, *Review of Educational Research,* 1972, 42, 145 – 1709.

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