

Reading type for children

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SUMMARY Young children experience difficulty with the present reading charts, and it may not be easy to decide whether this is due to visual problems or is associated with a deficient reading ability of the material presented to them. A reading chart has therefore been designed containing material graded according to the expected average ability for different age groups. The earlier grades use 'school script' print as well as Times Roman, which is used entirely for the older age groups. Selected words, reduced distance charts, a school script distance chart, and a standard distance chart, as well as some coloured pictures, are included.

Some children, especially those in the 4 to 10 age group, experience difficulty with the present distance and reading charts, and it may not be easy to decide whether this is due to visual problems, or whether it is associated with a deficient reading ability of the material presented to them. H. Kilmister (personal communication) wrote that it can be a problem to decide whether the patient cannot see some of the long words, and therefore cannot read them, or whether the patient does not know the long words and is unwilling to acknowledge this fact.

The writer therefore felt that it would be helpful to design a reading chart containing material graded according to the expected average ability for different age groups. Many children use some of the books in the Ladybird Key Words Reading Scheme, and are familiar with the 'school script' used in the earlier books in the series. As younger children have difficulty in reading the Times Roman print, W. Murray (personal communication) suggested using the school script for grades 1, 2, and 3 and also the level of the texts for the different age groups.

The Reading Type

The book contains: (1) The introduction, which is a summary of the rationale and usage of the reading chart. (2) Two pages of simple coloured pictures, which are not related to the following print size. (3) A page of selected words, consisting of only lower case letters, without ascenders or descenders. (4) Seven grades of reading material appropriate to each of the 7 age groups from 4–5 years to 10 and

over, and within each grade there are specimens of printing in sizes in N5, N6, N8, N10, N12, N14, N18, N24, N36, and N48. The first 3 grades (Fig. 1) are given in school script lettering of the Ladybird (sans serif) type, with simplified 'a' and 'g'. Some printing in these 3 grades is given in Times Roman for reference, as the 2 types cannot be exactly equated, and the remaining grades are in Times Roman (Fig. 2), as recommended by the Faculty of Ophthalmologists. A thumb index readily shows the level of each test. (5) A page of reduced Snellen types, school script test types, and reduced British Standard test types for comparison (Fig. 3), to be used at a distance of 35 cm. (6) A distance chart of Ladybird school script, which is very close to Times Roman in legibility coefficient, for use at 6 m, and for comparison a British Standard 6 m test type developed from Snellen.

Discussion

Each age group has been given a grade, numbered 1 to 7, so that even if a child's reading ability is not equal to that to be expected for the average age the results can still be recorded by the grade number together with the N size achieved. These can be recorded at each visit and the child's progress followed and compared. Some children may be able to achieve a higher standard of reading ability, even though their near visual acuity may be the same. For example, a child aged 5 might be able to read N6 in grade 1, and this would be recorded as such, whereas another child of the same age might only be able to read N6 in grade 3, but these results would be recorded and compared with those obtained at subsequent visits.

Law¹ suggested that reading types be standar-

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age group 5-6 years

Fig. 1

N5

Here is a dog and here is a ball.
 The dog has fun with the ball.
 I run with the dog to the shop.
 I like the sweets in the shop.
The dog plays with the big red ball. I can get the ball.

N6

Here is a girl and here is a cat.
 The girl can play with the cat and a toy.
 They play by the big tree.
 They have fun with that toy.
The cat can run to get the toy. The girl has fun with the cat.

N8

Here is a boy and here is a big dog.
 They have fun with the ball.
 The ball is in the water and the
 dog jumps into the water.
**The dog can get the ball from the water,
 but the boy can not get the fish.**

grade
2

N10

Here is a pig and here is a tree.
 I can see the pig and the big tree.
 I like to play with a ball and have fun.
 Here is some water by the tree.
**The pig can go to the water.
 He can see a big fish in the water.**

grade
3

N12

Here is a girl and here is a shop.
 It is a sweet shop and a toy shop.
 The girl likes the toys in the shop.
 She can have fun with the toys.
**The girl can go to the shop to get some dolls.
 She can get big toys in the shop.**

grade
4

grade
5

grade
6

N14

Here is a man and here is a cat.
 The cat has fun with a toy.
 They are on the red rug.
 The cat can sit with the man.
**We like to see the cat have fun.
 The man has to go home to see the cat.**

grade
7

Test
Types

N18

Fig. 2

The boy and his sister go on holiday. They go away to the seaside. Friends of theirs go with them to the sea. On holiday they play on the sands, and they ride on some donkeys by the sea.

N24

The brother and sister walked to a farm. They see pigs, cows and horses there. There are rabbits and a dog at the farm. The children have a friend at the farm.

grade
5

N36

On the way they pass some tall trees.

grade
6

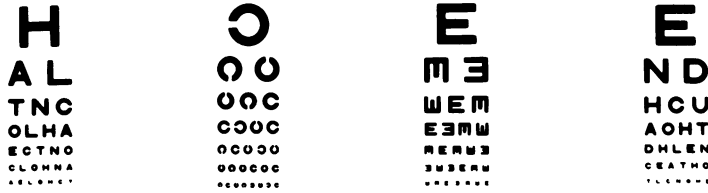
N48

They go out in a fast motor boat.

grade
7Test
Types

REDUCED SNELLEN TEST TYPE
For use at 35cm.

Fig. 3



REDUCED SCHOOLSRIPT TEST TYPE
For use at 35cm.



REDUCED BRITISH STANDARD TEST TYPE
DEVELOPED FROM SNELLEN
For use at 35cm.



The letters on the above charts are approximately equal to the Snellen sizes 6/60, 6/36, 6/24, 6/18, 6/12, 6/9 and 6/6 and are for use at 35 cm. The charts on the following pages are for use at 6 m.

**Test
Types**

dised, and in 1952 he suggested that Times Roman type face should be used and also that the selected passages should not be of too simple a nature. While it is not desirable that they should contain many difficult individual words which the average patient can neither recognise nor understand, they should not be so simple that he is enabled to get at the word sequence. However, many young children cannot read Times Roman print, being used to books with school script print, and many words in the present near types are beyond their ability, owing to their limited vocabulary. The writer has therefore used the school script for the first 3 grades of print, but included some Times Roman to show the relationship to the recommended Faculty of Ophthalmologists standard, and written material and stories based on some of the Ladybird material but including the vocabulary to be expected for a given age group, together with a few words from the next age group. A page of single 'selected words' has been included in the book, at the request of the orthoptists, to help with cases of dyslexia and when children have problems with reading.

Youngson² stated that the methods of visual acuity testing in children, which employ symbols presented singly, while useful as a means of rough estimation or coarse screening, are no basis for a final assessment or for checking the results of treating amblyopia. As some younger children have difficulty with capital letters, a 6 m school script chart has been included, so that children can be changed from symbols to letters on a full chart which they can recognise, before going on to the capital letters, though some of the lower case letters chosen resemble capital letters. The school script has been arranged to be very close to the Times Roman in legibility coefficient, but it cannot be made identical because of the different shape and proportion of the letters, as the Ladybird school script has long ascenders and descenders. For comparison, a British Standard 6 m chart developed from the Snellen charts has been included in the book. A similar school script distance chart has been produced for rotating test types in the clinic.

Law³ recommended the inclusion of a facsimile of a Snellen distance chart reduced to 1/17th of its normal size, and Gosnell (personal communication) stated it is essential to have at least 5 test types as children learn types by heart very easily. Several reduced distance charts and reduced school script charts have therefore been included together with the reduced British Standard types. Gosnell (personal communication) also stressed the importance of using the reduced distance charts at a specified distance of 35 cm. Kilmister (personal communication) stated that the reduced distance charts for use at near point can be of great value to the orthoptists in the treatment of dense amblyopes and that they are a good comparative measurement.

Two pages of simple coloured pictures, which are not related to the following print size or to the actual test, are included to obtain and stimulate the interest of young children who might otherwise be frightened or suspicious of being tested or unwilling to co-operate initially. They are not part of the actual test.

A bar reading book has been produced for the use of orthoptists, and this uses the same principles and similar gradings and contains the other charts as well as the 2 pages of coloured pictures.

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References

- ¹Law FW. Standardisation of Reading Types. *Br J Ophthalmol* 1951; **35**: 765-73.
- ²Youngson RM. Anomaly in visual acuity testing in children. *Br J Ophthalmol* 1975; **59**: 168-73.
- ³Law FW. Reading types. *Br J Ophthalmol* 1953; **36**: 689-90.



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