

The i.t.a. (Initial Teaching Alphabet) Reading Experiment

by JOHN DOWNING

IN SEPTEMBER 1961 four hundred children in England began to learn to read with a new alphabet specially designed to give young children confidence in reading through a greater certainty of success in the beginning stage.

Sir James Pitman (4) is the inventor of the Initial Teaching Alphabet (earlier known as the Augmented Roman Alphabet). His idea is that young beginners should use the more simple and more reliable i.t.a. (Initial Teaching Alphabet) until they have become confident and fluent in reading books printed in it, and that they then should transfer their skill and confidence to reading books printed in the traditional alphabet and spelling of English. The characters of i.t.a. and its rules of spelling have been very carefully designed to make it easy for children to transfer from i.t.a. to standard print. A complete description of i.t.a. and its spelling rules has been provided previously (1, 2).

How i.t.a. Helps

In the research conducted by the Reading Research Unit of the University of London Institute of Education, attainments of children using i.t.a. are being compared with the achievements of pupils learning with traditional orthography (t.o.). As far as possible all factors other than the alphabet and spelling in the begin-

ning reading books are being held constant in the two groups of classes (this includes an attempt to control the "Hawthorne Effect"). If the reading attainments of the two groups differ widely, therefore, we may trace the cause to differences in the alphabet and spelling.

The progress of the two groups has been very different indeed. After only five months the four- and five-year-old beginners who were using i.t.a. materials were significantly in the lead, and their superiority increased as the months went by. By the end of the first school year the average i.t.a. child was at Primer 2 of the reading program, while the average t.o. pupil was still at Primer 1. Before the middle of the second year the average i.t.a. child had moved to Primer 4, while the t.o. boy or girl had got to Primer 2. After two years the position was beyond Primer 5 (Grade 2-ii) for the average pupil in the i.t.a. classes as compared with Primer 3 in the classes using t.o. Table 1 gives more details of the progress of the group.

The Beginner's Traditional Load of Learning

Traditionally printed English overloads the beginner in three ways:

1. *Too many characters.* The t.o. beginner has to learn two or more different characters for each letter of the alphabet—*B* as well as *b*, *G* and

TABLE 1
PERCENTAGE FREQUENCY DISTRIBUTION SHOWING READING PRIMER REACHED AT
ONE YEAR, EIGHTEEN MONTHS, AND TWO YEARS

Reader Primer Reached	Percentage, Experimental Group			Percentage, Control Group		
	1 Yr.	18 Mo.	2 Yr.	1 Yr.	18 Mo.	2 Yr.
Beyond Book 5	10.4	35.85	53.6	0.7	2.6	15.6
At Book 5	4.35	7.75	7.85	1.2	2.2	4.9
4	9.95	13.1	14.4	1.7	7.85	15.25
3	16.95	16.2	9.8	6.4	14.7	22.45
2	20.6	11.6	9.8	13.0	27.35	17.85
1	24.45	11.4	3.6	45.4	33.35	19.7
At Introductory Book	8.7	3.65	0.3	23.9	10.5	3.45
Nonstarter	4.6	0.5	0.65	7.7	1.45	0.8
Number of Children	413	413	306	687	687	610
Median Primer Position	2	4	Beyond Book 5	1	2	3

g, etc. In contrast, the pupil using i.t.a. materials has only one single printed form for each letter of the alphabet. Where capitals are needed, i.t.a. simply uses a larger version of the same lower case shape.

2. *Too many whole-word representations.* In i.t.a. there is never more than one way of printing the same word. For *dog* the i.t.a. pupil has to learn one visual pattern only instead of the five or more different sets of characters in conventional print, for example:

dog dog Dog Dog DOG.

3. *Too many phonic print-signals.* In our traditional alphabet and spelling there is a wide variety of ways of signalling in print the restricted number of basic sound units of English. For example, in t.o. there are at least eighteen different ways of spelling the sound common to such words as *zoo*, *shoe*, *grew*, *through*, *do*, *blue*. In i.t.a. this variety is reduced to one single symbol for the single sound, for example:

zɔ, ʃɔ, grɔ, θrɔ, dɔ, blɔ.

Thus the beginner with t.o. is weighed down by a heavy burden of redundancies: too many unnecessary characters, too many unnecessary whole-word visual patterns, too many unnecessary phonic print-signals. For the beginner with i.t.a. the load is greatly lightened, for he has only one form to learn for each letter, only one visual pattern for each whole word and sentence, and in most cases only one letter to learn for each of the forty or so basic sound units of English.

i.t.a.—Simpler and More Reliable

Unfortunately for the *English-speaking* child, his traditional printed code is extraordinarily complex and inconsistent. The i.t.a. code, however, has:

1. *Consistent spelling.* In t.o. letters cannot be relied upon to keep the same sound value, for example, the use of the letter *o* in *do*, *go*, *women*, *gone*, *one*. In contrast, i.t.a. is much more consistent as a code for spoken

English. Each of the different sounds in these words

dɔ, gæ, wimen, gon, wun

is signalled by a different printed symbol, as the young code-breaker would anticipate. He, therefore, finds that he can rely on the code, and is not led to doubt his rational approach to such problems.

2. *Consistency of direction.* In traditionally printed English we read words from left to right, but within many words the letters are not to be read from left to right in the early primitive decoding stage of learning. For example, in the word *made* the first sound is signalled by the first letter on the left, but the second sound is signalled by letters two and four and the child must *reverse* from right to left to read the final sound signalled by letter number three.

In i.t.a. the left to right rule of reading is never broken, for example:

mæd

3. *Reduced complexity of phonic symbols.* The traditional alphabet does not have enough letters to provide one letter for each of the forty or so sound units of English; instead, letters have to be used over again in a variety of combinations. For exam-

ple, the letters *ch* are used in t.o. to represent a different sound in *chat* from either of the sounds indicated by *c* and *h* separately in *cat* and *hat*. In i.t.a. a special character can be used for this sound, thus:

çh t

This attempt to make i.t.a. a more reliable code for young beginners seems to have produced dramatic results in our research. The pupils learning to read and write with i.t.a. have demonstrated great superiority in word building. For instance, on the Schonell (6) graded word reading test at the end of the first year the average i.t.a. learner could read 19 test words or more on the i.t.a. version of the test, whereas the average t.o. pupil using conventional print could read only 5 test words on the same test in conventional print. At the beginning of the fifth term (six months later) the average scores were 37 test words read correctly in the i.t.a. group and 11 in the t.o. group. Table 2 gives more detailed results of this test.

This superiority of the i.t.a. pupils is not confined to phonic word-building. They are also advanced in comprehension, accuracy in sentence reading, and speed of reading. Ac-

TABLE 2
RESULTS FOR THE SCHONELL TEST, GIVEN AT END OF THE FIRST YEAR AND IN THE FIFTH TERM AFTER ENTRY

Group	First Schonell Test			Second Schonell Test		
	N	Mean	Standard Deviation	N	Mean	Standard Deviation
Experimental	345	18.8	20.7	345	37.1	27.0
Control	623	5.2	6.6	623	10.9	10.6

N.B. The means between the two groups differ significantly at the .0001 level of significance for both Schonell tests (applying student's *t* test).

ording to Southgate's recent report (7) their creative writing, too, is superior in both quality and quantity.

Children Readily Transfer to Standard Print

In the schools using i.t.a. each child makes the transfer to reading traditional print when he individually is ready for this step. In our experiments a very few children have been transferred from i.t.a. to standard print after only two or three months, but most appear to reach the necessary level of fluency in i.t.a. during the second year of schooling.

Fluency in reading i.t.a. is desirable before transfer is executed, because Sir James Pitman in his design of the alphabet has preserved in i.t.a.—to the greatest extent compatible with the purpose of easier teaching—those same cues, generally situated in the top part of the line of print, which we use when we have achieved fluent reading of the conventionally printed page. A minority of words do change more drastically in appearance, but children can guess these from context. Once a high level of fluency in i.t.a. has been achieved, the pupil will have developed the necessary skills of using the minimal cues and contextual clues which will ensure a smooth transfer.

Eighteen months after beginning to learn to read with the new alphabet the i.t.a. pupils achieved very superior scores on tests printed in the *traditional alphabet and spelling*. The children who began with i.t.a. and later transferred to t.o. have read the latter with much greater

accuracy and comprehension than children who have been learning with t.o. from the beginning. For instance, on the Neale Analysis of Reading Ability (4), after eighteen months at school, the average i.t.a. pupil scored 23 for accuracy and 8 for comprehension *when reading t.o.*, as compared with scores of 9 and 4 respectively for the child who had been on t.o. from the outset. The i.t.a. pupil reads an average of 34 t.o. words per minute as compared with 19 words per minute for the average child in the classes in which t.o. had been taught from the start. See Tables 3, 4, and 5 for details of these results.

TABLE 3
READING ACCURACY AS MEASURED BY THE
NEALE ANALYSIS OF READING ABILITY
(Both Groups Tested in t.o.)

Group	N	Mean	Standard Deviation
Experimental	146	22.9	17.4
Control	190	9.3	11.9

N.B. Significant difference between the two groups at .1 per cent level using Kolmogorov-Smirnov Test ($D=21.46$).

TABLE 4
READING COMPREHENSION AS MEASURED BY
THE NEALE ANALYSIS OF READING ABILITY
(Both Groups Tested in t.o.)

Group	N	Mean	Standard Deviation
Experimental	146	7.9	6.1
Control	190	3.5	4.4

N.B. Significant difference between the two groups at .1 per cent level using Kolmogorov-Smirnov Test ($D=21.46$).

A complete report on the first two years of the i.t.a. reading experiment in Britain has just been published—Downing (3)—but we have subse-

TABLE 5
READING RATE AS MEASURED BY THE
NEALE ANALYSIS OF READING ABILITY
(Both Groups Tested in t.o.)

Group	N	Mean	Standard Deviation
Experimental	146	33.9	24.2
Control	190	18.7	18.9

N.B. Difference between the two groups not significant using Kolmogorov-Smirnov Test ($D=17.14$).

quently analysed the results of giving the Schonell test *in t.o.* to both groups in the course of their third year (chronological age 7.1 years). The average t.o. score for i.t.a. pupils (this includes some who are still on i.t.a. readers) was 34.4 (reading age 8.4 years), as compared with only 24.1 (reading age 7.4 years) for the children who started out with t.o. Thus a conservative estimate of i.t.a.'s effectiveness for the average pupil is that it saves one year in learning to read *t.o.*

Effect of i.t.a. on Writing and Spelling

The report on the first two years of the i.t.a. experiment (3) stated that creative writing appears to be much improved in i.t.a. classes, and some teachers claim that "the standard of creative writing has improved almost beyond comparison." These claims are at present under objective investigation at the Reading Research Unit, but already they have some support from Southgate, who has observed in her independent study of i.t.a. (7) that "Free writing in the class appeared more spontaneous, prolific and correctly spelt than is usual with such young children."

Earlier this year a t.o. spelling test was administered to both i.t.a. and t.o. groups. At the time of writing not all the answer papers have been returned, but Table 6 shows the analysis of the data so far available.

TABLE 6
SPELLING TEST (T.O.), SEPTEMBER 1961
ENTRANTS, SCHONELL'S GRADED WORD
SPELLING TEST A

Scores	Over-all Comparison	
	i.t.a. Group (N=318)	t.o. Group (N=602)
Mean	28.7	24.1
S.D.	16.4	14.0

N.B. $t=4.34$, significant at .1 per cent level.

It is noteworthy that by the middle of their third year of schooling the i.t.a. pupils are able to spell *t.o.* words significantly better than the children who have been reading and writing with t.o. only.

Although the spelling test was given in t.o. to both groups of children, 49 (15 per cent) of the 318 i.t.a. children had not transferred to t.o. at the time of testing. It should be pointed out that these spelling results are incomplete and that the background information of the two groups in terms of intelligence, sex, and social class has not yet been determined.

In conclusion, although caution must be exercised in respect of the findings to date, the results of the i.t.a. experiment in Britain indicate that a fruitful line of inquiry has been found.

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search Unit, University of London Institute of Education.)

References

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(This article was originally scheduled for the October issue of this journal, which had beginning reading instruction as its theme. The editor regrets that printing problems delayed publication.)

Federal Support for Reading Instruction

A significant point in reading instruction in the United States is marked by the inclusion of reading in the extension of the National Defense Education Act. IRA supported the passage of this bill, under which two kinds of help will be available to improve the teaching of reading. Under Title III, the purchase of certain books and equipment will be made possible on a matching basis through state educational agencies. Title XI will provide for institutes for the improvement of reading.

Guidelines for the implementation of the new law will be circulated as soon as possible by the U. S. Office of Education, and further information will be published in IRA journals as it is available.