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Dedicated to finding the causes of difficulties in learning reading and spelling.

"A closed mind gathers no knowledge; an open mind is the key to progress."

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Part II

Simplified Spelling, Phonetic Alphabets, and their application to the teaching of reading,
by Betty Lou Allen Iles, M.S. (Ed.). 1965.

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1. Editor's Comments

Why were previous attempts at teaching with a phonetic alphabet not quite the rosy dreams that the authors led us to believe?

In this small space available, the subject cannot be covered adequately. But let us briefly suggest some of the probable reasons.

1. Lack of consideration for the difficulty of transition to T.O. It is axiomatic that any completely phonetic alphabet when thoroughly learned, can easily be used by a student to write any ideas he wishes to express. Sir Isaac Pitman's was a completely phonetic alphabet and hence easily learned. But if you look carefully at its dozen or so strange, unconventional characters like nothing in T.O., it should convince you that it is difficult to read – hence the transition must have been quite difficult. On the other hand, the Edwin Leigh Self-reading print should have been successful, but too few different books sealed its doom.

2. Insufficiency of primers and readers. In the old days, the teacher was expected to teach a class how to read with one primer and two or three readers. The pupils were expected to re-read these boring books over and over again to get practice so as to gain fluency. Then he was expected to be able to read anything (including the Bible) on his own. Now we know better. Certainly lots of practice is needed – but interesting material is essential to keep pupil interest and motivation. And 7 or 8 readers are needed to carry the pupil through all the learning steps and to familiarize him with the various letter combinations and their sounds.

3. Insufficient free time library material. Practice with interesting material is essential to continue motivation. Without this the pupil never quite gets the self-confidence he needs for a love for literature.

Doubtless there are other good reasons. Who can analyze the various past systems and tell us in an article for this magazine what other weaknesses they had? Can we try to avoid a discussion of the relative merits of the different types of methodology?

-o0o-

(SR1 and SR2 used – Spelling Reform 1st and 2nd step – an idea suggested by Harry Lindgren of Australia, to show the public how a modest simplification of our archaic spelling could be introduced gradually. How about others joining in this campaign?)

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[Letters in green should be joined, as in ita. Green z = reversed z. Green r should have an approach stroke].

2. Chapter V. Sir James Pitman and the Initial Teaching Alphabet

Almost a century and a quarter after Sir Isaac Pitman began work on his phonetic shorthand system, another Pitman developed another phonetic alphabet. [1] James Pitman, grandson of Sir Isaac, had a different purpose for his development. Where the grandfather had originally developed his system as a means of speedwriting and later turned to crusading for spelling and alphabet reform, the grandson intended his alphabet as a means for making it easier for school beginners to learn to read in traditional print.

I. Reasons for Development

In explaining his objectives, Pitman said:

The alphabet here put forward is a "reformed" Roman one. It is new. It is, however, an augmentation of the existing lower-case Ehrhardt Alphabet of the Monotype Corporation, and its augmentations have been designed for the purpose of providing a consistently alphabetic representation of the English language, suitable primarily for teaching reading to English-speaking children (and adults), and secondarily for teaching English speech and reading to adults (and children) who already speak some other language and may also read it in Roman Characters? [2]

Pitman stressed that his alphabet was not an attempt to reform the spelling of English. When asked about the possibilities of its being used as a permanent means of communication, he wrote in reply:

. . . In life you can nowhere escape the dilemma that the purpose determines the design. Any system designed for one purpose has drawbacks in relation to a purpose for which it was not designed. . . My i.t.a. . . . is not as suitable . . . as a permanent spelling reform as it could be made; on the other hand, in making it more suitable . . . it would become less suitable for its now intended purpose. [3]

Originally called the "Augmented Roman Alphabet," Pitman later decided to call it the "Initial Teaching Alphabet," or i.t.a., to indicate its intended purpose. It consisted of 43 (later 44) symbols, 24 of them identical to those found in the traditional print of books and newspapers. The other 20 were either ligatures meant to stand for the sounds of consonant digraphs, diphthongs, long vowels, or entirely new symbols that stood for special spellings: the long double-o sound, the short double-o, etc. Like most of his predecessors, he considered *q* and *x* to be unnecessary letters. As a matter of fact, a comparison of the two alphabets, grandfather's and grandson's, reveals a great similarity between the two, tho the younger Pitman's alphabet apparently had several marked advantages over the older orthography: the augmentations in Sir James's were more compatible with the existing symbols; the i.t.a. characters were simpler, easier to write than were the earlier alphabet, for example: *ou* as compared to *ou*. {for the second sound in *doubt*; the greater similarity between i.t.a. and T.O. seemed to indicate an easier transition: *see* to *see*, *boot* to *boot*, *church* to *church*, rather than *si* to *see*, *boot* to *boot*, or *gurg* to *church*. [4]

Sir James, as had his grandfather, had for many years been concerned with the high percentage of reading failures in school students, not just beginning readers, but those who continued to be unable to read effectively thruout their school years. In a paper delivered to the Royal Society of Arts in 1960, he presented evidence to show the high percentage of non-readers and ineffective readers in two different age levels: primary children and pupils 15 years of age. In that presentation, he remarked:

. . . Reading is no more than understanding the printed equivalents of the spoken words which he already understands; and given the same success, self-satisfaction, and self-confidence in the beginning, there is no reason why he should not succeed with the written language as completely as with the spoken. . . But unless he is exceptionally lucky, and the group exceptionally talented, he will be in a class in which every second child will experience so much difficulty that even after two whole years of work in the "Infant Department," he will still be stumbling and will pass to the Junior School, doomed either to failure in effective reading, or to a hard and long struggle throughout the next four or five years in the Junior School.

He continued by showing tables that supported his statements: only 54.4% of those children who had been in school two years had reached "Book 4," a point considered satisfactory for this level in school. Of the 45.6% who fell below the acceptable level, 19.2% were still at Book 1 level (about pre-primer level in American schools), or below. [5]

A second table was concerned with the reading attainment of pupils who were 15 years of age, samples taken at four year intervals between 1948 and 1956. The table showed that in 25% of the cases in 1956, the students' reading ages were less than 12 years, or at least three years below their chronological ages? Pitman commented that the students were not only deterred by mechanics, but also by semantics, "since because they have never read effortlessly, their vocabulary and so their comprehension is poor, and their reading thus both effortful and unsatisfying." [8] He also called attention to the connection between reading failure and emotional problems, suggesting that perhaps failure could be the cause of emotional problems, rather than vice versa. "At all events," he said, "the high correlation between reading failure and truancy, juvenile delinquency and crime, is an admitted fact." [9]

Pitman believed that the irregularities in T.O. spelling and the variations in appearance of the symbols encountered in reading, such as dissimilar upper and lower case letters (and the very fact that both are used in combination), the use of italics, manuscript writing, and script, are some of the contributors to difficulty in reading that many children encountered. He also believed that although English writing was supposedly alphabetic, and that many children did eventually work out their own generalizations that helped them attack unfamiliar words or recognize words encountered before, the above characteristics were more numerous than they should be, particularly where the novice reader was concerned. He pointed out that the child first learned his language through tearing and continued to supplement sight even when reading silently. Even when the child received his instruction completely by the "look-and-say" method, he eventually began to take advantage of the "alphabetic nature of the material," but for the phonic approach to be really effective Sir James wrote, "there must be a relationship, not a dis-relationship, between the word symbol when spoken and the word when printed: but T.O. is full of dis-relationships – and of the two kinds. . . ." Here he called attention to the many spellings, either homographs such as *reading* (the act of getting meaning from the printed word) and *Reading* (the city, pronounced reding), and words that looked as though they would rhyme (done, gone, one, bone) but did not. He also listed words that appeared not to be related phonetically at all, so far as the spelling was concerned, but were pronounced similarly, such as: *penny* and *many*, *over* and *mauver*. [10]

Pitman declared that T.O. failed the child auditorily; he discovered the relationship between *go*, *no*, *so*, and then encountered *do*, *to*, *who*. He called attention to the spelling of such words as: *once*, *ought*, *all*, *was*, calling them shockers. He commented:

There are in T.O. no less than 44 alternative characterizations for only the two sounds of: ie and i, varying from *aisle*, *eye*, *sign*, *choir*, *buy*, to *by* . . . from *villiage*, *surfeit*, *women*, *business*, to *physic* for the other. [11]

He found approximately the same to be true with the other vowels. The consonants, he believed, often have been altered to stand for sounds other than their most usual (usurpation, as Hart would have said).

In speaking of the purpose behind the development of the alphabet, Sir James stated:

I believe that . . . I have succeeded in keeping myself objective. Moreover, my motives are transparent. I seek only the benefit of the young child who has not yet learned to read. This is no reform of spelling: nothing need be reprinted in this medium, even if the research is successful as I hope. The only effect will be upon the books and papers designed for children who cannot as yet read fluently. [\[12\]](#)

II. The Alphabet

As was said before, originally the Pitman Augmented Roman Alphabet contained 43 characters, to which a modified *r* was subsequently added (see figure 8, page 26, previous issue). This was the so-called "vowel controller" *r* that often follows *e*, *i*, *u*, and sometimes *o*, causing them to have the *û* sound heard in *her*, *sir*, *word*. The alphabet contained, beside this *r*, 27 consonant sound symbols and 17 vowel sound symbols. Of the vowel symbols, the short vowel sounds were represented by the conventional symbols, the long ones, by the traditional vowel joined to an *e*.

In the new alphabet, consonants had their most usual sounds: *g* always had its "hard" sound, as heard in *goat*, never the sound of *j*, *c* and *k* always had the same sound, *c* never saying *s* as in *city*; the *f* sound was never represented by the *ph* digraph.

Pitman employed two symbols for the two sounds represented in T.O. by *th*. The direction that the "tail" of the *t* turned determined whether it had either the "voiced" or "voiceless" sound of *th*. He also used, as had several before him, an *n* with a small *g* "clinging to its leg" to stand for the digraph heard at the end of *sing*. An elongated *s*, like the one seen in ancient manuscripts, was joined to *h* to represent the initial sound in *shoe*. Also joined were the letters in the digraphs *ch*, *wh*. Two *z*'s, one reversed, were included – one used in words that actually contained a *z* in T.O., the other used to replace *s*'s that sounded like *z*. Only *y* had two values, being used as a consonant at the beginning of words, and as a vowel at the end of words or syllables. [\[13\]](#)

Rules for Spelling. Harrison, in writing about the Pitman alphabet, gave the following 13 rules for spelling with i.t.a.

1. *Y* is used as vowel or consonant in accordance with normal practice: *yet*, *pity*, *family* (but note *pitifol*, *pitius*, *familiar*);
2. *z*, *z* The former is used whenever it is normally used: the latter replaces the traditional *s* when it has the sound of *z*, e.g. *zωz* (zoos), horse*z*.
3. *æ*, *a*, *a*, *a* .
æ is the diphthong or long vowel in: hate-hæt.
a is the long open vowel in: calm-cam.
a is the long (or short as may be pronounced) vowel in grass. [\[12\]](#)
4. *c*, *k*. Both represent the same sound. Use the one which occurs in T.O., kick, accept (accept), cōk (cook).
5. *ch* – *dich* is not wrong, but *ditch*, being nearer to T.O., and quite unambiguous, is preferred.
6. *j*, *z*. The former is the consonant in *jaw* and the second is the middle consonant in *vizon* (vision). If a *dg* occurs in T.O., the i.t.a. form is *dj*, (which gives the same sound as *j*) in order to retain the *d* and maintain a visual similarity to T.O.
7. Alternative pronunciations are largely a matter of choice. Dr. Daniel Jones' *English Pronouncing Dictionary* is recommended as a guide, and where it gives alternative the spelling is preferred which corresponds most closely with normal spelling – *often* rather than *aufen*.

8. **ue**. Some spellings must be arbitrary and, following the *English Pronouncing Dictionary* **ue** is used in words such as – post**uer** (posture), pict**uer** (picture), feet**uer** (feature). . . Initially **ue** begins such words as – **uenion** (union), but **y** begins such words as – **yow** (you) **yoth** (youth), **yow** (yew). Traditional orthography is the guide.
9. **au, or**. It should be noted that while **w** (**qu**) is often followed by **a** in English, **a** hardly ever has its normal sound in that position. Usually the character **au** is needed, **wau**ll (wall), **wauter** (water), **wau**m (warm), but **worn** (worn), as normally spelled. . . Also **faul**t (fault), **saul**t (salt), **pau** (paw) . . . But note **woz**. (was), **whot** (what), **skwonder** (squander), . . .
10. The neutral vowel common in English unstressed syllables is generally represented by the vowel found normally. It is usually, possibly always, a good test, if in doubt, to sound the word deliberately as one does when dictating slowly or pronouncing a word as a name, e.g. in the sentence: "The pronoun *that* is pronounced differently from the conjunction *that*."
11. **r, r**. The second symbol is written when **r** is combined with any of the four vowels: **e, i, u, y**, to represent the sound in *her, fir, fur, myrrh* – *her, fir, fur, myrr*. It is used with no other vowels.
12. Double letters are used when found traditionally, e.g. **ill** (ill), **rollickin** (rollicking); **ck** is, of course, a double letter in this contest.
13. The vestigial first vowel is retained in the final syllable of words like **spe**fhial, **judi**fhjal, **æ**fhjan, **sœ**ldier. The form is readily accepted and leads easily into traditional spelling. But the **i** is not retained in **fhon, jon, chon, zon** endings, e.g. **stæ**fhon, **se**fhon, **crœ**sifickfhon, **reli**jon, **stand**chon, **televi**zon. [\[14\]](#)

Harrison called attention to the fact that almost half of traditional spellings were either not affected at all or so slightly as to be almost unnoticed: 26.5% not at all; 23.75% only slightly, e.g. **rin**, **our**, **been**; 10.5% changed but still familiar in form, such as: **littl**, **appl**, **hav**. That left 39.25% of the words that were changed radically, e.g. **riet**, **skœ**l, **cof** (cough), **hoel** (whole), **aut** (ought). [15] Some features Harrison did not stress were that **ph** and **gh** were never used to represent the **f** sound, that **ks** and **gz** were used to replace **x**, and that **kw** represented the regular **qu** spelling.

[1] In personal correspondence with the writer of this paper. Sir James pointed out that he had actually begun work on his alphabet in 1937, just 100 years after his grandfather's alphabet was first used.

[2] M. Harrison, *The Story of the Initial Teaching Alphabet*, London, Pitman Pub. 1964. p. 106.

[3] See note 1.

[4] See Figs. 7 & 8 for a comparison of these 2.

[5] James Pitman, "Learning to Read" reprinted from the *Journal of the Royal Society of Arts*, Feb. 1961, p. 3.

[7] Ibid.

[8] Ibid.

[9] Ibid.

[10] Ibid., pp. 10-11.

[11] Ibid., p. 17.

[12] Ibid., p. 26.

[13] M. Harrison, op. cit., p. 112.

[14] M. Harrison, op. cit., pp. 112-4.

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Chapter V. Sir James Pitman and the Initial Teaching Alphabet contd.

III. The British Experiment

In the Summer of 1960, the Univ. of London Institute of Education, in cooperation with the National Foundation for Educational Research, published a booklet:

Some reasons why we are initiating an investigation into the early stages of learning to read, when the matter to be read is printed in a special form alleged to be easy to learn and leading easily to a full reading skill. . . .

It proposed to begin a genuinely scientific investigation of the utility of a special alphabet. Theretofore, work done with the reformed spellings or alphabets had not been done under controlled conditions. The Institute intended that the new alphabet should be planned with the assistance and guidance of "scientific experts, educational, psychological, statistical, typographical, phonetic. . ." [\[16\]](#)

The study was undertaken with the approval of the Minister of Education and professional education groups. The committee formed to guide the project was comprised of H. L. Elvin and W. R. Niblett of the Institute of Education of London Univ.; W. D. Wall of the Nat. Foundation for Educational Research; P. E. Vernon, Joyce Morris, Cyril Burt, D. B. Fry, and Sir James Pitman. In October of the same year, John Downing was appointed to direct the inquiry. [\[17\]](#) Downing had been an industrial research officer previously, but was a graduate in psychology and had wide teaching experience. He had had no prior experience with either teaching methods or spelling or alphabet reform. He was chosen purposely because he had no pre-determined opinion concerning existing reading methods or Pitman's new alphabet. At the time he was interviewed for the position he insisted that he was "as innocent of knowledge as he was devoid of opinion . . . his job was to find out the facts and to let them form his opinion." [\[18\]](#)

Planning the Experiment.

In planning the experiment, it was hoped that data could be obtained to answer three questions:

1. Is the traditional orthography of English an important source of difficulty in beginning reading?
2. If children learn to read more rapidly and with greater success in the simplified and regularized i.t.a. reading system, can they transfer their superior reading skill from i.t.a. over to T.O.?
3. Is this two-stage process worthwhile in the final outcome? Are reading attainments in T.O. superior, after transfer, to what they would have been without the intervention of the special i.t.a. writing system for beginners? [\[19\]](#)

The first task for Downing was organizing the research unit and obtaining the specially printed books and materials. The reading series used was the *Janet and John* series, (a look-and-say method), because it was the most widely used series in English schools, and also because its publishers, James Nisbet and Co. Ltd. allowed the whole series to be transliterated into the new alphabet. [\[20\]](#)

It was decided that the teachers to be included in the experiment should be recruited strictly on a voluntary basis; no one should be expected to teach who did not willingly enter the experiment. The

teacher and her supervisor had to want to be a part of the study; if either was reluctant, neither was included. They were asked not to change their methods of teaching, only to use the special orthography. Both the experimental groups and the control groups were using identical reading series, only the print differed. Libraries of the two groups were as near parallel as possible. [21]

In order to prevent the "Hawthorne Effect," [22] the teachers of the T.O. groups were given in-service training, research visits, and other activities in order to keep them at the peak of enthusiasm and teaching efficiency. All training classes for the experimental teachers were paralleled by corresponding workshops among the control teachers [23]

The parents of the children were not ignored. They received brochures, letters, and pamphlets, informing them of the experiment to be undertaken. Parents were asked to attend meetings and workshops so that they might understand any materials their children would bring home or prepare at home. Only children whose parents gave assent were included in the experimental classes. [24]

It was hoped that eventually 50 schools would be included in the i.t.a. experiment, matched by 50 control schools, with approximately 2500 students included in each group. [25] Not only were the schools matched by grade levels, numbers, and ages of students, but also by socio-economic levels. The ages of the children varied from approximately four to five. Some schools had plans that allowed children to enter school in the *term* in which they would be five years old, while others allowed the children to enter the *year* in which they were five, so a child's age at beginning of instruction could vary from exactly four years, one month to exactly five. [26]

Beginning the Experiment.

In Sept. 1961, the experiment actually began. The school year opened with 432 children starting school in the i.t.a. classrooms. This group, because some who could already read were eliminated from it and some dropped out or moved away, dwindled to 345. In April and June respectively, 164 and 165 new enrollees were added. A few of them dropped out also so that, at the end of the year, 594 students remained in the experimental group. Careful records were kept on each child, noting his progress from book to book and when he began and when he finished each one. Even the number of days absent during the reading of a given book was recorded. [27]

A comparison of the two groups showed that the experimental group had progressed much faster than had the control group: while 86.7% of the i.t.a. children had progressed beyond Book I of the reading series, only 68.4% of the T.O. had; 10.4% of the experimental group had progressed beyond the Book V level while only .7% of the control group had. Periodically, a vocabulary check was made, at first in a transliterated version of the standardized survey generally employed; later tests were in the traditional alphabet in order to find out how well the transition had been made. The Schonell Graded Word Reading Test was given to the groups at the end of the school year (June, '62) the control group taking the same test in traditional print, with the following results: 29% of the control group scored 5 or above, while 62% of the experimental group did so; .2% of the control group scored 50 or beyond while 10.3% of the i.t.a. group reached or exceeded that point; though none of the control groups scored more than 55, nearly 7% of the i.t.a. group did, several reaching a score of 85. In reporting the results, Downing stated:

If subsequent tests of the remainder of the sample confirm the above results, we can be certain that *children recognize very many more words in print when they are presented in Pitman's i.t.a.*, and we may then conclude that *the traditional alphabet and spelling do seriously frustrate children's attempts to translate these printed symbols into their own English language.* [28]

The hypothesis of the research group was that not only was the reading task, the "unlocking" of unfamiliar words made more difficult by conventional orthography, but also that T.O. affected comprehension of words that were already in the child's speaking and understanding vocabularies. They believed that i.t.a. should bring the listening and reading comprehension levels closer. They hoped to prove this with the aid of tests of comprehension. Both groups were tested by using the Neal Analysis of Reading Ability (Form C), administered in Feb. 1963, 18 months after the beginning of the experiment. Downing reported the results of the tests in three areas: accuracy, comprehension, and rate. In all three categories the experimental group scored significantly higher than the control group.

In comprehension, though the ages of the students ranked from 5½ years to 6¾ years, 27% of the i.t.a. children scored a reading comprehension score of 8 years, 2 months and above, as opposed to 6% of the control group who did this well. Similar results were achieved by the i.t.a. group as far as the other two areas were concerned. 23% of the experimental group achieved accuracy scores of 41 or more, the norm for 8 years, 10 months, on the standard form of the test. The control group had only 3.2% at the same level. [29]

The children in the experimental classes read at a significantly faster rate than their counterparts in the control group. Whereas only 4% of the control group attained a score of 41 words a minute or better, 19% of the experimental students reached this level or above. Only 15% of the i.t.a. group read less than 11 words a minute, but 39% of the control group fell in this category. [30]

Downing summed up the evidence of the first two years by drawing the following conclusions:

1. Young children get through their beginning reading programme faster when the books are printed in i.t.a.
2. They can recognize more words in print when they are in i.t.a.
3. They can more readily read continuous English prose accurately.
4. They can comprehend more continuous print if i.t.a. is used.
5. They can read faster when the medium is i.t.a. [31]

Making the Transition to Traditional Orthography.

It had been agreed that the children in the experiment were to be carried through the transition to T.O. when they appeared to be ready for it. Until that time, parents had been asked not to encourage the children to attempt reading in T.O. books. Much to the surprise of the teachers involved, it was found that a large number of the children were making the transition to regular print unassisted, almost spontaneously. Maurice Harrison recounted an amusing incident involving one little boy, 4 years and 5 months old who, wandering from the i.t.a. section of the library, took home Sewell's *Black Beauty*. He recounted:

This boy's father told his son that he could not read *Black Beauty*, to be told in reply, "I have read it." The father unbelievably gave the boy his paper to be read and it was read. Recently this little boy, then 5 years and 5 months old, was asked by his headteacher what books he liked best. He replied, "*Peter Pan, Winnie the Pooh, Treasure Island* (and after a thoughtful pause) and *Black Beauty*. It makes me cry but I keep on reading it." And that is the most youthful example of literary appreciation I have ever heard. [\[32\]](#)

In order to test the extent to which the children were able to make the transition to traditional print, in March, 1963, a subsample of the larger group was given the standard version of the "A" form of the Neale Analysis Test. A matched sample of the control group was also tested with the same form. It was considered important to know how much of the superior skills that the i.t.a. group had gained would transfer to T.O. after 1½ years of school. The i.t.a. group scored significantly higher in two of the before-mentioned areas than the children who had been reading T.O. all the time. For instance, while only 16% of the T.O. group scored 21 or more in accuracy, the i.t.a. had 56% of its scores falling in this category. In comprehension, the i.t.a. group had 30% score 11 or above while only 8% of the control students made similar scores. In the area of reading speed, though the difference was not significant, the trend appeared to be in the same direction. The surprising fact of the situation was that *more than half of the i.t.a. group had not made the formal transition*, but were still reading materials in the new orthography in class. Downing concluded from the evidence:

These results seem to indicate that children can transfer their reading skill from i.t.a. to the traditional alphabet and spelling so successfully that their attainments *in reading conventional print are better (at this stage)* than they would have been without the early period on the i.t.a. However, this conclusion must be regarded as only tentative at this juncture in our research programme. It is based on a very small sample of pupils, and, in any case, valid judgement cannot be made until enough years have elapsed to determine whether or not the superiority of the i.t.a. pupils in reading continuous print is permanent. [\[33\]](#)

At the end of the second year the experiment had involved 2,808 children, taken in over a two year period at six different "intakes," coinciding with the beginnings of the six terms of school included in this period. These children were attending 16 experimental schools. Another 1000 were added in September, 1963, in order to match the sizes of the experimental and control groups. Pitman reported to the conference of the Educational Records Bureau in New York in October and November of that year that a "considerable number" of classes had been formed outside the experiment, involving approximately 5000 more children bringing the total number of children involved in the i.t.a. classes to 8,800, and the number of participating schools to 33. [\[34\]](#) In discussing the future and i.t.a. at that meeting, Sir James Pitman concluded in his speech:

It now seems that we who are interested in the teaching of reading are now like the citizens of a beleaguered city whose seige has been raised. The gates stand wide open, and we are free to discover and select from a great many directions where we may wish to travel.

So far, the researchers have been studying virtually only how well and how quickly children learn to read with i.t.a. I look forward to the long-term, comprehensive, multi-track, adequately-financed research programme . . . that will be concerned with reading in all its aspects and in all of its relations with the whole of education. What such research projects are appropriate in such a program? How may early reading be coordinated with other learning; how may early reading provide a basis for curriculum reform, and so on? How may we help

parents and children to insure that children do not come to school non-linguistic at an age when they may have lost what may be only transient, the optimal aptitudes for language and learning? How may we make the learning of reading contribute to the child's all-round verbalism-listening, speaking, writing, as well as reading? In particular, to what extent is non-verbalism in speech likely to be a major factor in causing difficulty in reading, even when the mechanical difficulties of reading and the frustrations of traditional orthography have been removed?

Parents and teachers must not only establish "the word" in the mind of the child but also teach the relationship between the spoken language on one hand and the visual language on the other.

These two manifestations of "the word" are linked by meaning and also-thanks to the alphabet-by form. This second relationship must also be made simple and direct and cease to be concealed and disguised by confusion.

Let us then recognize that verbalism is our aim in teaching, let us plan our future researches around this unique faculty that can justly be termed the quintessence of our humanity. [\[35\]](#)

[16] Ibid, p. 116.

[17] J. Downing, *The Initial Teaching Alphabet*, New York: Macmillan Co, 1962, p. 3.

[18] M. Harrison, op. cit, p. 123.

[19] John Downing, "Teaching Reading with i.t.a. in Britain," *Phi Delta Kappan*, April, 1964, p. 322.

[20] M. Harrison, op. cit. p. 120.

[21] J. Downing, op. cit, (17), p. 2.

[22] The mere fact of being involved in an experiment tends to have a stimulating effect on both the student and the teacher, causing an increase in achievement. This is the "Hawthorne Effect." As the novelty of the situation wears off, the achievement tends to drop.

[23] The Prevention of Communication Disorder by the use of a Simplified Alphabet," *Developmental Medicine and Child Neurology*, v. VI, April, 1964, p. 114.

[24] M. Harrison, op. cit, pp. 115-21.

[25] J. Downing, *The Initial Teaching Alphabet*, p. 41.

[26] M. Harrison, op. cit. p. 123.

[27] Ibid. p. 125.

[28] J. Downing, *The Initial Teaching Alphabet*, pp. 45-50.

[29] Ibid., p. 43-56.

[30] Ibid., p. 56.

[31] Ibid., p. 57.

[32] M. Harrison, op. cit., pp. 157-8.

[33] J. Downing, *The Initial Teaching Alphabet*, p. 61-2.

[34] J. Pitman, "The Future of the Teaching of Reading," address to the 28th Educational Conference by the Educational Records Bureau, New York, 1963, pamphlet, p. 5.

[35]. Ibid., pp. 28-30.

Chapter V. Sir James Pitman and the Initial Teaching Alphabet contd.

IV. Experiments in the United States

Before the experiment in England had hardly got underway, it had already attracted the attention of several educators in the United States. Some even made the journey across the Atlantic to see firsthand what was being done and how it was being done. Two persons particularly interested were Albert J. Mazurkiewicz of Lehigh University School of Education and Harold J. Tanyzer of Hofstra Univ. Mazurkiewicz became one of the chief proponents of the new alphabet in the United States, helping to set up the first really large-scale experiment in that country. In collaboration with Tanyzer, he helped create a series of beginning readers in the new orthography. They used the symbol: i/t/a to distinguish their readers from the i.t.a. in England. The Tanyzer-Mazurkiewicz reading scheme was a complete series with workbooks and teachers' manuals and was the series to be used in most of the experimental classes in America. [\[36\]](#)

The Lehigh Workshop and Plans for the Experiment. At Lehigh Univ., in the Summer of 1963, a 2½ day workshop was held. The purpose of the session was to introduce i/t/a to American educators. Included in the workshop were those persons who were to be involved in the first round of the reading experiment in Bethlehem, Pennsylvania schools, among them, the teachers who would actually teach the 15 beginning first grade classes who would use i/t/a, as well as substitute teachers and kindergarten teachers. Several other interested persons made a total of over 50 involved in the workshop.

On the first day, the initial session of 2½ hours was concerned with writing the symbols and rules of spelling in the new alphabet. There was particular concentration on the following points:

Writing by sound-symbols or characters of the Initial Teaching Alphabet is similar in many respects to the procedures used in writing the traditional alphabet. The lines, circles and hooks of manuscript are changed only in that they flow continuously from one to the other rather than being discrete elements. The additional characters of i.t.a. necessitate only the addition of the loop. The procedure used results in characters which are described as a form of print which is half way between the manuscript and cursive forms. . . .

Although each symbol in the Initial Teaching Alphabet has a name, symbol names are not taught. It has been seen that the child often becomes confused in analyzing or synthesizing words when he has only a choice between a symbol name and a symbol sound. Therefore, only the sound which is associated with a given symbol is taught.

Since the child can be expected to come to school knowing some or all of the traditional alphabet letter names, it is advisable to point out that the letters have names and sounds and that you are only concerned at this time with teaching the sounds associated with the letters and that later you will teach the letter names.

Although such terms as letters, character, and symbol can be used interchangeably when referring to the items in an alphabet, the most accurate term to describe an item in a phonetic alphabet . . . is the term symbol-sound. A constant reference to the symbol-sound *a* or the symbol-sound *n*, etc. demands an emphasis on correct pronunciation of sounds. These are

very often difficult, if not impossible to pronounce in isolation without, to some extent, distorting the sound . . . yet it is more correct to do so and follow immediately with words that direct the child's attention to the sound in word contexts than it is to teach letter names and direct attention to the sound of the letter in word contexts. . . .

The key words of the *Alphabet Book* should be used consistently and often so that the child learns to remember and refer to the key word for aid in analyzing sounds in new words. It should be used as the first word in any series of words given orally to demonstrate the sound in word contexts.

The child should never be required to remember in sequence the letter names of the Initial Teaching Alphabet, since he is progressing from the transitional to the traditional. [\[37\]](#)

Concerning spelling, the teachers were instructed that the beginning stages of reading were also the beginning stages of writing. Unlike many school programs where the writing and reading were not coordinated (sounds being introduced by frequency, letters by ease of execution), the i/t/a program introduced the symbol and the sound it represented simultaneously. Of this, Mazurkiewicz wrote:

The child's task in reading (in the mechanical sense) is primarily one of determining which sound, or rather sound cluster, the symbols are intended to represent. In the writing activity he is concerned with encoding sound, i.e., writing the symbols which represent the sounds he wants expressed in print. The emphasis in writing activities should always be on encouraging the child's creative tendencies. Thus, the freedom he enjoys in speech should be paralleled by freedom in writing. This emphasis permits him a freedom in spelling using the Initial Teaching Alphabet which is only inhibited by the criterion of clarity of meaning both to himself and to his teacher. [38]

The child in this program was to be taught to spell as he spoke. If the word was spelled phonetically, it was to be considered correct. The child was to learn that there *was* a relationship between how a word sounded and how it was spelled. His spelling of a word was to be corrected only if the pronunciation would be altered in traditional orthography, such as the substitution of *c* for *k* in a word when the *c* would have the *s* sound in T.O. (e.g., *cept* for *kept*). The teachers were to correct errors that showed that the child was making a wrong association or letting a pronunciation error or speech defect be reflected in his spelling.

It was hoped that the experiment would demonstrate the use of i/t/a as a tool in learning to read and establish its value or effectiveness. The test of the alphabet was to extend over a three year period in order to give it a fair trial. The two groups, experimental and control, were to be as nearly identical as possible as far as intelligence, readiness, and socio-economic status were concerned. It was believed that the experiment should indicate what problems would be likely to arise, how they could be solved, and how the new program should be gradually introduced into a school system. It was decided that in order more nearly to match the two groups, some i/t/a teachers should change schools, working with a different socio-cultural level than previously.

The first year 500 students would be taught with i/t/a, while 1000 would receive the traditional type of instruction; the second year, 1000 would use i/t/a, 500, T.O.; the third and last year, all would be using the new orthography. Wrote Mazurkiewicz:

Thus the results on two different populations would be available for study. The first year's study would provide data which would indicate what limitations a strong readiness program in kindergarten emphasizing traditional orthography placed on the population, while the second year's data would be based on an experimental population which was given the same readiness program but emphasizing the use of i/t/a. [39]

The Bethlehem Experiment. With the opening of school in Sept. 1963, the American experiment got under way. Between 5 and 600 children began to study the 44 symbol alphabet, starting with the most frequently used sounds, learning to read and write them at the same time. At first some of the teachers of the experimental groups were a little disturbed because after six weeks the children in T.O. classes were in or preparing to start their first pre-primers, while their children had not begun to read books yet. The i/t/a children were still in the readiness book (Book I of the *Early-to-Read* series). [40] Anxiety began to fade as time went on. At the end of ten weeks, it was found that about 10% of the experimental group had finished Book I. The children in this group had a reading vocabulary of 320 new words, as compared to the T.O. population who could read *only 66 words*, and those by *sight*. [41]

By the start of the fifth month of school, the difference between the experimental and control populations became significant. A report from Mazurkiewicz said:

1. The reading program can be structured to follow the rates of learning of individual children. The skills portion of the program was found to be embodied in the child's initial task-learning to make, fix, and use associations between the sounds of his spoken language and the i/t/a symbols used to represent these in print.
2. This word recognition program appears to become a program of 3 to 4 months for the bright child.
3. Interpreting the results of the Botel Word Recognition Test given to a small sample of the population in the fifth month of school (transliterated for use with i/t/a trained population), it appears that complete mastery of the 44 sound-symbols by the first grade child produces word recognition ability equivalent to a 3² level in the test.
4. When the children have had exposure to all 44 sound-symbols but have had directed instruction on only 37, achievement on the transliterated Botel Word Recognition Test was typically found at a 3¹ level.
5. Complete freedom to utilize the best teaching procedures existed. Experience approach, combined with group activity, combined with individualized instruction were being used.
6. Teaching, as such, is apparently no more difficult than usual. Teachers' needs, rates of learning, or the kind and degree of reinforcement demanded, or as suggested by the curriculum, the season, or the calendar. [42]

In order to obtain some indication of how the two groups compared where word recognition was concerned, at the beginning of the sixth month, a subsample of each group was tested with the Botel Word Recognition Inventory – the T.O. children using the standard version, the i/t/a children, a transliterated version of the same test. A score of 70% to 80% at any level was considered to be the child's reading instructional level. The groups, representative of the middle and upper-class socio-economic level of the total population, achieved the following results: 58% of the experimental group scored at the third and fourth grade level, with only 3.5% of the control group reaching this point; 28% of the i/t/a children reached first and second grade level, 26.5% of the T.O. group did;

only 14% of the *i/t/a* children failed to go above the primer level, compared to 70% of the T.O. children. [\[43\]](#)

In March, Rebecca Stewart, Director of Elementary Education at Bethlehem reported, "We are very excited: the gains we have made through the *i/t/a* medium are greater than we anticipated." She and her associates predicted that by the end of the year, 75% of the experimental group would have gone through the transition period and be reading *at least third grade* materials, while only 50% of the T.O. children could be expected to be ready to attempt *second grade* materials. [\[44\]](#)

As the time for the close of school drew near, the difference grew even more apparent. Most of the children in the T.O. group were reading at the first grade level (74%) though 20% were still at primer level or below, and only 6% were in the second reader materials; on the other hand, almost 1/4 (24%) of the *i/t/a* pupils were reading in third grade level materials, 1/2 (51%) were reading in second grade level materials, 15% in first reader, and the remaining children, about 10%, were reading at or below the primer level. [\[45\]](#)

Mazurkiewicz summed up the first year of the experiment of the Fall issue of *i/t/a Bulletin*: At the end of the first year of the experiment, the reading achievements of matched *i/t/a* and T.O. populations were examined – on T.O. tests. (These populations were matched within two points on I.Q., on socio-economic status, sex and age). The group included the 114 children from the *i/t/a* population who could be considered to have made the transition by being solely in T.O. materials for at least one week.

Some 91% of the *i/t/a* group achieved at the second grade or above point (on the Lower Primacy California Reading Test) as compared with 67.4% of the T.O. population. Better than 29% of the *i/t/a* population achieved third reader or above grade levels as compared with 10.8% of the T.O. population. An examination of the portion of the population below the second grade level norm for year-end testing indicates that 9% of the *i/t/a* group scored below that grade, while almost 33% of the T.O. children were below it. While *none* of the *i/t/a* population fell below the 1.5 grade level, over 11% of the T.O. population did.

The Lower Primary California Test results suggest that the *i/t/a* population is *significantly* superior to the control population in word recognition and total reading; it scores at about the same level in comprehension. The Upper Primary form of the test, however indicates that the *i/t/a* population results are *significantly superior in all three measures*. The change in comprehension test results from the first form to the more difficult form may be attributed to the *i/t/a* child's ability to sustain attention during the longer test of comprehension or to his greater opportunity to profit from the learning experience of the previous comprehension test (no equivalent to the comprehension test-type items contained in traditional basal reader workbooks exists in the *i/t/a* materials). [\[46\]](#)

***i/t/a* and the child with low socio-economic status.** Examination of the results of the year's work showed that the subsample of the children tested was evenly matched as far as socio-economic level was concerned, but taking the over-all experiment, there was not a true matching between the T.O. population and the *i/t/a* population, the latter being definitely composed of a larger number (40%) of children from a lower socio-economic level than the former. The *i/t/a* children fell into two groups: 270 from upper and middle-class areas, 181 from the area best described "culturally deprived" or "culturally different." It included most of the children in Bethlehem of Negro or Puerto Rican

ancestry and others with verbal or language difficulties resulting from bilingualism or lack of formal education.

The results of the first year showed that the children in the low level seemed to profit more than the children in the middle and upper levels of society. (see Figure 9 below).

Figure 9.

Reading levels attained by children in the Lehigh-Bethlehem study at the end of the first eight months of instruction.

Instructional levels of both populations from good socio-economic levels:

Reader level i/t/a N=270 T.O. N=612

3rd	40%	0%
2nd	53.5	8.2
1st	5.6	81.0
Primer or below	1.1	10.8

Instructional levels of the low socio-economic populations

Reader level i/t/a N=181 T.O. N=202

2nd	47%	0%
1st	26.5	54.5
Primer or below	26.5	46.5

A comparison of figures showed that, where the "deprived" child was concerned, though he did not achieve as well as the "advantaged" child, he did far better in i/t/a than in T.O. Whereas the i/t/a children of the low group achieved 47% at the second reader level, none of the low T.O. children reached second reader level, 54.5% reached first reader level, 46.5% remained at primer level or below – 20% more than with i/t/a. It was found that not only did this group achieve better levels in reading, but also in creative, independent writing and spelling than did those using the conventional approach. [\[47\]](#)

Independent Writing and Spelling.

The advantages of i/t/a for creative writing were immediately apparent. As in the case of the British experiment, the child, once he had learned the symbols and the sounds they stood for, could spell any word he wished. He was not bound by traditions that might spell the "long e" sound with *ee*, *ei*, *ie*, *ea*, or *e* consonant *e*. When he wanted to spell a word with that particular sound, he knew he had to use the one symbol that stood for it. This made it very simple to learn. The same held true for all the other vowels, as well as the consonants and digraphs. The quality of the written work was much higher, the choice of words wider, not being limited to the ones in the book, the ones on the spelling list, or the ones that the teacher had time to spell for the writer. The sentence structure, probably reflecting the more mature pattern of the textbooks, was more varied than was generally found in the first grade. Stewart, speaking to the National Council of Teachers of English, in 1964, reported that examination of compositions of the i/t/a groups made two points apparent: First, the i/t/a children almost always wrote complete sentences, and second, punctuation seemed to be more consistently correct, commas and quotation marks, which had not been taught, appeared spontaneously. Whether this was by teacher or text example was not known. Another observation

was that all types of sentences were used, and a "tremendous" vocabulary employed. She commented:

A side benefit was the extent to which children revealed their problems and concerns, their joys and sorrows. Teachers said they gained a greater understanding of the child's world and environment, the family relationships and home conditions. With these understandings they could be more accepting of the child's behavior patterns. It was certainly easier to accept the listless and inattentive child when one knew that he got his early sleep in the back seat of a car parked in front of the bowling alley. [\[48\]](#)

The children did write more freely, with fewer inhibitions. Conventional first grade teaching seemingly, instead of encouraging the already growing verbal powers of the children, stunted that power, limiting them to write such stilted expressions as, "I have a dog. See my dog. I like my dog." Not so the i/t/a children. Instead, they produced such compositions as follow (translated into T.O.), illustrating how the children felt about beauty, fantasy, and their inner feelings:

When robins come to get some worms I feel sad and the worms feel sad. The worms try to get away. I feel very very sad. Steven Weaver, 6
I saw a pheasant and the flowers and a apple tree and a sun and the flower just opened and sun had a happy face. Bret Keiper, 6

When I look in water I feel very happy. The water is like a little mirror lying on the ground. Daniel Breslin, 6

Mister Dragon

There was once a dragon who turned purple and green. He wore glasses. He was very old. He had a wife. She was the same color which was purple and green. She wore glasses too. She was very old like her husband. Sharon Correll

"Mother, I'm home." "Good. Now take your coat off and help me clean up." "no. I have to do homework." "Don't tell me no." "Well I have homework." "O.K. you little girl. When Daddy comes home from work I'm telling him. And take Toto out." Catherine Kimock, 6

My father loves me. He spansks me but he still loves me. He gets mad at me but he still loves me. I asked my father if he will tell me a bedtime story but he says no. I asked my father if he will take me to work and he said no. Real loud. But he still loves me. Jack, 6. [\[49\]](#)

My sister had a new baby. It is a girl. It has cold black hair. It was like Ramy and Greggy's hair. It is the tiniest baby I ever saw. It really really really cries a lot. [\[50\]](#)

My father took my dog to the vet. My dog got put to sleep. I was sad. She kept getting sick. I am going to get another dog.

Josephine Huber, in telling of her experiences with creative writing at Rosemont School in the Bethlehem experiment, said that the stories varied from short captions such as "sit in your seat" to long ones, ten pages of primary writing paper, written on both sides. In an article on first grade writing, she declared:

I have been working with six year-olds for 20 years, but I never; before last year, received such varied and delightful stories. The same i/t/a symbol is used to represent a specific sound each time it is heard. The children are aware of this, and almost immediately start writing their own words, then sentences, then stories. Any word they can say, they can write, and they are off!

Their stories are not *a thing apart*, but *a part of themselves*. They are written in normal, conversational sentences, which may require one line, two lines, or more. . [\[51\]](#)

Miss Huber also commented on how easily the children became aware of the appropriate punctuation required in certain types of sentences. She was asked by one child, "How do you make an exciting mark? I need it for my story." In her class she did not introduce story writing as such; one little girl's spontaneous story of a day's excursion triggered an interest in stories and as the teacher said, "It just seemed to happen." [\[52\]](#) Miss Huber was not the only one who was impressed with the enthusiasm for writing which the children displayed. Parents, as well as teachers were excited about it.

In most of the classes involved, little formal spelling was taught at the first grade level. No instruction was given on words that were spelled differently in the new orthography from the way they were usually spelled. It was felt that making the children commit words to memory that would have to be "unlearned" later would be likely to have harmful after-effects. The children were given some informal exercise in spelling in which they spelled words that were identical in both orthographies. Miss Huber and 9 another teacher, Mrs. Knipe, who had been questioned by parents about i/t/a's effect on spelling, decided to test their children's spelling ability during the sixth month of instruction. Taking a list of 221 words from the second grade spelling workbook (where spelling instruction usually began), Miss Huber picked out the 101 regularly spelled words that were the same in both orthographies, and tested her children on them. Given 7 to 10 words a day to spell, with no spelling instruction, practice, or drill ahead of time, the i/t/a children in Miss Huber's group had an average of 86% correct.

It appears that the typical second-grade spelling program is meaningless, since much of the work set out for the grade is already accomplished in the first year. Since transition activities (which are primarily a recognition of spelling patterns) had not even begun when these tests were completed, it can be assumed that higher spelling standards must be set to meet the abilities of i/t/a taught children. [\[53\]](#)

Later tests, administered at the end of school (Stanford Achievement Spelling Test), showed no significant difference in the spelling ability (in T.O.) of the two groups. Dr. Stewart explained:

These youngsters can already spell – in traditional symbols (not i/t/a) – at least 40% of the words in a spelling program through fourth grade. I believe that spelling competency in general will be vastly improved, because the relative ease with which the children have learned the sound-symbols allows the teacher to concentrate more on unusual spelling patterns. [\[54\]](#)

Transition.

As in the case of the British experiment, the teachers and investigators found that a great many of the i/t/a children began to make the transition independently and almost automatically. Being

exposed to T.O. from every side, filled with enthusiasm and the desire to read, the children tried to read anything and everything. Transition was begun for the better groups of the experimental population sometime during the third and fourth months of the school year, although the children were still being instructed in the workbook material in *i/t/a*. There seemed to be very little confusion when the child first read in one orthography, then the other.

Formal transition did not begin until April, at which time the more advanced groups began to learn to recognize the most common spellings of the various sounds in T.O. Shortly after, teachers reported that 64% of the "good" socio-economic group were, and had been for a period, reading widely in T.O. library books, and that by May 15 would be reading *only* T.O. materials, at the third grade level. [55]

An illustration of the facility with which the transition was accomplished was the results of the tests administered to the children who had made the transition. When the California Test was administered to children matched in I.Q., sex, and socio-economic level, differing only in that one group had been taught all along in T.O. and the other had just completed formal transition, the results were encouraging, particularly in view of the fact that both were tested in traditional orthography. The mean grade equivalent for the T.O. group was 2.2, while the *i/t/a* group averaged 2.9. 1½% of the *i/t/a* reached 4.0 grade level, contrasted to none of the T.O. group; none of the *i/t/a* group scored below the 1.4 level, 11.6% of the T.O. did!

65% of the *i/t/a* children scored between 2.4 and 3.9, but only 38% of the T.O. fell in this category. The same type of results were found when the Schonell Word Recognition Test was given. This test placed 6% of the experimental group (N-99) below .9 grade equivalent, while 40.2% of the control (N-87) scored at that level. Only 2.3% of the T.O. group scored above the 3.9 level on this vocabulary test, while 58.5% of the experimental group scored at that level or above. [56]

At the end of the first year, the following tentative conclusions were drawn:

1. Children can learn to read more rapidly in *i/t/a*.
2. Children learn to encode sound to communicate through writing with a high degree of facility when taught using *i/t/a*.
3. Traditional spelling of English is a significant source of difficulty for beginners.
4. The first grade *i/t/a* classroom, according to teacher reports, is more easily controlled; fewer organizational problems occur and more individualized teaching is accomplished within a grouping structure. Reports indicate that the child develops independent work habits earlier than usual, has a greater capacity for work, and appears to be more self-motivated in learning situations.
5. Through the use of *i/t/a*, the sentence structure and vocabulary of first grade material can more closely approximate the vocabulary and sentence structure of the child early in the first year of school. His wide interests can more readily be met by such reading material.
6. Reading performance in T.O.- by *i/t/a* taught children (post transition) as measured by standardization tests in the ninth month – is significantly better than that developed by T.O. children taught by similar procedures.
7. T.O. spelling achievement (post transition) for the *i/t/a* child in the ninth month of school is no different from that developed by children taught only T.O. spellings. [57]

Second Year of i/t/a.

It had been agreed that in order to be promoted to second grade, in most instances, the child should be able to read with competence Book Four of the *Early-to-Read* i/t/a program, and to be able to write sentences that were understandable by his teacher and classmates. These rules were intended as guidelines, not rigid requirements. Some who attained this level were retained because of lack of social or emotional maturity, while others were sent on even though they did not meet the criteria. Teacher judgement as to whether the child would benefit from another year in first grade played a role in his placement when he was reading below the 2.4 level. [58]

During the Spring, before school was out, the teachers who were to teach the second grade sections containing the experimental group children began their preparation for the next year by observing their future charges in action. This was done to acquaint the teachers with the skills and activities that the children were experiencing, and the ability levels of the children. In June and September these teachers were a part of the workshop that also prepared the 16 new teachers who would join the first year's teachers in the Fall. In order to orient the second grade teachers with the program, part of the workshop was concerned with second grade specifically-what had gone before and how it should continue particularly concentrating on post-transition activities.

Early in the school years, to determine how much the children in both groups had retained of the previous year's training, the Lower Primary California Reading Test was administered to both populations. There was little evidence to substantiate the frequently voiced belief that first grade children lose much of their reading proficiency during the Summer. In the i/t/a population, to the contrary, there was a decided upward trend, with larger percentages scoring at the 3.5 to 3.9 level (over 6%), perhaps due to greater use during the Summer. Statistics published after the tests were administered showed that the i/t/a children had made gains rather than losses in comprehension achievement (See [figure 10](#)). Mazurkiewicz, in discussing the results, pointed out:

Table III shows a marked improvement in comprehension achievement of the i/t/a population and a marked loss for the T.O. population. The improvements in the i/t/a population might be due to such factors noted previously as better test-taking ability because of work habits but also might be due to improved recognition skill in paragraph contexts. The marked loss in the T.O. population's comprehension cannot wholly be accounted for by the slight loss in W/R but may be due to the loss of work habits or other factors not readily discernible . . . The results thus far do indicate . . . that comprehension achievement of the i/t/a population is far superior to the achievement of the T.O. population (33% achieve at 3.0 or higher level as compared to only 17% of the T.O. population). . . This achievement difference . . . might be a reflection of the larger vocabulary these children have met, their wide variety of writing experiences or other factors still unknown. Nonetheless, this achievement difference suggests that an i/t/a approach may have unexpected advantages over similar procedures in T.O. [59]

At the beginning of the school year the second grade children were placed as follows: 15% in developmental reading materials at 3¹ level; 20% were still in i/t/a material, either Books 5, 6, or 7, mostly at the transition stage. The remaining 65% were in traditional materials at 2², level. Mazurkiewicz felt that a bit of conservatism existed among the teachers, causing them to place the children slightly below their actual reading levels. He wrote:

While it might be assumed that such procedure did not fully utilize the advantages gained in i/t/a, it was recognized that these "children are after all seven-year-olds" who must now learn to deal with

many high level concepts. This conservatism is therefore viewed as a protection effect. It could be concluded, too, that an element of insecurity about "using up" materials of later periods (3², 4¹, etc.) existed. Thus the question, "What will be done later by teachers if these children get through materials too quickly?" was implied. [60]

The second year students began to study spelling formally, both on a group and individual basis. As was begun in the transition stage, children were taught the various ways that vowel sounds might be spelled in T.O. They were introduced to dictionary skills by using an i.t.a-T.O. dictionary in which they could find the conventional spellings of words needed in creative writing. [61]

The experimental children, taking advantage of their superior reading ability, turned more and more to the library for entertainment and information. They read widely on the subjects of science and social studies. This helped them advance in their other studies.

[36] *The Story of i/t/a*. New York: i/t/a Pub. 1964, pp. 14-5.

[37] *Handbook on Writing and Spelling in the Initial Teaching Alphabet*, New York: i/t/a Publications. Quoted by A. Mazurkiewicz in periodic report on Bethlehem Experiment. p. 2-4.

[38] *Ibid.*, p. 4.

[39] Mazurkiewicz, "That 43 letter Alphabet," interim report on the Bethlehem experiment, 1963, p. 1.

[40] Mazurkiewicz and Tanyzer, *Early-to-Read* series (7 books) New York: Pitman Pub. Co. 1963.

[41] "The First Year in Bethlehem: a Summary," *i/t/a Bulletin*, Fall, 1964, pp. 2-3.

[42] *Ibid.*, p. 3.

[43] *Ibid.*

[44] "i/t/a Report from Bethlehem, Pa." *i/t/a Bulletin*, vol. I, Spring, 1964, p. 1.

[45] Mazurkiewicz, *i/t/a Bulletin*, Fall, 1964, p. 3.

[46] *Ibid.*, p. 1. 47. Mazurkiewicz, "Interim Report," June 15, 1964. Mimeograph from Lehigh Univ.

[47] *Ibid.*

[48] R. Stewart, "i/t/a in Bethlehem-After One Year," *i/t/a Bulletin*, Spring, 1965. pp. 1-3. reprint of a speech delivered to the National Council of Teachers of English, Cleveland, Ohio, Nov. 1964.

[49] Geo. Riemer, "A Bizarre Alphabet Teaches Johnny to Read," *Ladies Home Journal*, Oct. 1964, pp. 70, 137-8, 140.

[50] R. Stewart, op. cit., p. 3.

[51] Josephine Huber, "i/t/a First Graders Write," *i/t/a Bulletin*, v. II, Spring, 1965, p. 4.

[52] *Ibid.*

[53] "i/t/a Report from Bethlehem, Pa." *i/t/a Bulletin*, v. I, Spring, 1964, pp. 2-3.

[54] *Ibid.*, p. 2.

[55] Mazurkiewicz, "The Lehigh-Bethlehem i/t/a Study, (Interim Report)" Lehigh Univ. p. 6.

[56] *Ibid.*, p. 7.

[57] Mazurkiewicz, "Bethlehem Interim Report 6," *i/t/a Bulletin*, Fall, 1964, p. 2.

[58] "Second Year Evaluation: Lehigh Univ. Bethlehem Schools i/t/a Study," *i/t/a Bulletin*, Winter, 1964-65, p. 3.

[59] *Ibid.*, pp. 4-5.

[60] *Ibid.*, p. 3.

[61] R. Stewart, *i/t/a Bulletin*, Spring, 1965, p. 2.

Chapter V. Sir James Pitman and the Initial Teaching Alphabet contd.

V. Other Experiments.

While the Bethlehem experiment was by far the largest in North America, it was by no means the only one. In the first year (1963) approximately 3000 students in seven states were involved in various experiments, studies and tests of the new orthography. The second year the number increased to over 20,000 in 30 states. These did not pertain solely to first grade, but involved many special groups as well. [\[62\]](#)

Kindergarten and i/t/a. Tanyzer, who coauthored the *Early-to-Read* series of i/t/a readers, and the Nassau School Development Council, cooperating with 15 schools in New York and Connecticut, helped plan a large scale study of the effects of early reading instruction in i/t/a and T.O. on kindergarten children. On Long Island, 2000 school children, half kindergarten and half first grade, were to be involved. Of each level, 50% were to be taught to read in the conventional medium, the other half in i/t/a. The study was expected to answer two questions: "Should children be taught to read before the traditional starting age of first grade? Would a change to a more reliable alphabet and spelling of English during the beginning stages of reading and writing significantly alter a child's reading and spelling progress?"

The study was planned to last until the first group of children had completed third grade. Comparisons were to be made between the experimental and control populations in reading, spelling, arithmetic and language, not only at the end of the study, but at yearly intervals as each grade was completed. [\[63\]](#)

i/t/a and special groups. Although Pitman's alphabet was designed primarily for teaching beginning reading, it soon attracted the attention of persons who were concerned with reading instruction and "special" students: the mentally retarded child, the slow learner, the remedial reading class, the illiterate adult. Many smaller studies were begun, using i/t/a as the medium, for teaching these exceptional cases. In Wisconsin, Harriet L. Nelson, a Supervisor of Speech and Hearing, reported on a class of mentally retarded children, CA, 7 to 13 years, MA 4.4 to 6.6, IQ 40 to 67 (eight children in all). It was found that the children were making more progress at a faster rate than with other reading programs, both in reading and writing. No conclusions were cited, as the program was only in its beginning stages. [\[64\]](#)

Similar studies were reported from Ohio, Michigan, New York, Pennsylvania and Toronto, Canada. Also reported were classes of emotionally disturbed children. In Kingsville, Texas, James Larick reported his difficulties in teaching English to Spanish speaking children. After abandoning the International Phonetic Alphabet which he found impractical, i/t/a was investigated, the results were so favorable that the medium was adopted and was to be used full-scale in future courses of that type. [\[65\]](#)

Harrison wrote of many instances where i.t.a. was used in "special reading" or remedial reading classes with older children in England. He told of one group, age 8.10 to 10.0 who read at less than 6.0 level, many of them from poor homes and unable, at the beginning of the classes, to differentiate between the letters of the alphabet. At the end of the year (1961-62), the children had made significant progress (see [figure 10](#)). The reading ages of the group ranged from 6.2 to 14.0 with an average reading age of 7 years 9 months, almost two years achievement in 9 months. Not only did the children make splendid progress, but Harrison noted great change in general attitude as well. While these children of 8, 9, and 10, before the study, had not been rebellious as one might have expected, they were apathetic and inattentive. After they had begun to read with i.t.a., they

became more animated, eager to learn, and interested in books. They also were more careful with their books, personal belongings, and appearance. At the end of the following year, all of the children were active, participating members of normal classrooms. [\[66\]](#)

Another teacher, after 15 years of teaching non-readers with little success took three 10 and 11-year-olds, behavior problems with an average reading age of 5.5, and taught them using i.t.a. He reported:

They were delighted and their enthusiasm knew no bounds. By February these boys had completed the basic reader of the *Janet and John* scheme and were working through the various supplementaries. Indeed they had become such avid readers that at times I was obliged to stop them and redirect their energy. . . . As their confidence grew the behavior problem disappeared. [\[67\]](#)

After their initial success, the teacher introduced the rest of the remedial class to i.t.a. and one year later proudly reported that none was unable to read, and that all but two had made the transition to T.O. with little assistance. "Instead of asking the teacher to pronounce a difficult word," he commented, "the child now rephrases the question: 'This word says _____, doesn't it?' He concluded enthusiastically, "Never in my teaching experience have children such as these derived so much pleasure from books. Never before have I enjoyed the teaching of reading so much. [\[68\]](#)

Other teachers commented on the decline of behavior problems as ability to read grew. One said, "For a C class, the children are very enthusiastic and full of self-confidence. Their reactions are quite different from those of any dull children whom I have ever had before. They are like a stream of children in their manners, the only difference is in achievement" [\[69\]](#)

i.t.a. and the general public. From the many accounts of work that was being done with Pitman's initial teaching medium, it seemed that an effective tool for learning to read had been found. The two larger experiments became the focus of attention among educators, many of them who travelled great distances to observe the children in action, perhaps skeptical of second and third hand accounts. Seldom did anyone come away unimpressed by what he observed. The visitors echoed the enthusiasm of the teachers. William D. Boutwell of Scholastic Magazine visited first in Bethlehem and then in Oldham, England, and came back to report of the successes of the new medium. In two articles in *P.T.A. Magazine*, he wrote of what he had seen and attempted to answer the questions of concerned parents, the same ones frequently asked by the researchers conducting the experiments, and by the parents of the children involved. He concluded his report by saying:

Both parents and teachers are properly cautious about wonderful new "cures" for our educational pains. We have seen new schemes come and sometimes go . . . My conclusions, which are shared by abler observers, are that no one can afford to overlook the promise that i.t.a. holds for reaching improvement, creative writing, and interest in books and learning.

Our best authorities agree that success in education depends first and last on skill in reading. They agree also that our current efforts to teach all children to read well leave much to be desired. Perhaps i.t.a. will open the door to the creation of a truly literate society.

Listen to the words of former state Superintendent of Public Instruction in Pennsylvania, Dr. Charles Boehm: "My hope of many years is approaching realization-namely, that all normal children may be effective readers at six years of age and that non-readers will be a rarity in our schools. [\[70\]](#)

Not often has a new reading scheme or method of teaching aroused such a wide interest among educators and the general public. If earlier schemes had failed because of lack of good

reporting or publicity, or inadequate testing, Pitman's alphabet is not likely to suffer the same fate.

Figure 10.

Reading tests at the end of first year and beginning of second year to determine retention during the Summer vacation.
Reading achievement of matched samples

Grade level	i/t/a		T.O.	
	May, 1964 N=114	Sept. 1964 N=93	May, 1964 N=114	Sept. 1964 N=93
4.0	1.57%	1.07%	zero	zero
3.5-3.9	4.07	10.75	2.37	5.37
3.0-3.4	24.07	21.50	8.57	13.90
2.5-2.9	37.06	35.48	28.67	20.43
2.0-2.4	24.07	22.58	27.07	29.03
1.5-1.9	9.07	8.60	21.07	21.50
1.0-1.4	zero	zero	11.67	10.75
Vocabulary sub-test achievements of the sample populations				
4.0	1.75%	1.07%	0.88%	1.07%
3.5-3.9	1.75	4.28	0.88	1.07
3.0-3.4	31.58	26.88	11.40	11.83
2.5-2.9	37.72	38.71	26.32	26.88
2.0-2.4	15.79	20.43	29.82	24.72
1.5-1.9	8.77	8.60	20.18	22.57
1.0-1.4	2.63	zero	10.53	11.82
Comprehension sub-test achievements of the sample populations				
4.0	0.88%	16.13%	2.63%	6.45%
3.5-3.9	1.75	1.07	6.14	1.07
3.0-3.4	19.80	16.13	27.19	10.75
2.5-2.9	38.60	24.81	31.58	18.28
2.0-2.4	24.56	20.45	22.81	22.58
1.5-1.9	13.16	21.50	9.65	25.81
1.0-1.4	1.73	zero	zero	12.90
0.5-0.9	zero	zero	zero	2.15

[62] Geo. Riemer, op. cit., p. 70.

[63] "i/t/a Experiment on Long Island," *i/t/a Bulletin*, Fall, 1964, p. 5.

[64] Harriet L. Nelson, "i/t/a in Wisconsin," *i/t/a Bulletin*, Spring, 1965, p. 8.

[65] J. Larick, "i/t/a to Teach English to Spanish Speaking Youths." *i/t/a Bulletin*, Winter, 1964-65.
p. 7.

[66] M. Harrison, op. cit., pp. 163-6.

[67] *Ibid.*, p. 167.

[68] *Ibid.*, p. 168.

[69] *Ibid.*, p. 170.

[70] Wm. D. Boutwell, "An Easier Way to Learn to Read, i.t.a." *P. T. A. Magazine*, Sept., Oct., 1964, (reprint).

3. Chapter VI. Summary and Conclusions

I. Summary

It was the purpose of this study to investigate the record of attempts to regularize the alphabet, to systematize or simplify the rules of English spelling, and to outline the attempts of educators to augment or simplify the alphabet in order to produce more consistently phonetic material to be used in teaching beginning school pupils to read. An attempt was made to trace the progress of spelling reform movements through the last five centuries, with particular emphasis on the early part of the 19th century. At the same time, since there is no true line separating spelling reform and alphabet reform, an attempt was made to show the various augmentations, revisions, and innovations attempted during that period.

It was believed that a study of the history of alphabet and spelling reforms and the teaching of reading with the aid of these media could make a contribution to the general history of education, and to reading instruction in particular. An attempt was made to show that, in the history of reading instruction, there was evidence of failure to learn to read on the part of too large a portion of the population, and that there existed, and had existed for generations, an answer to the difficulties of a large percentage of these failures in the form of a phonetic or phonemic alphabet (or alphabets) that could have greatly simplified the process of learning to decipher the symbols that represented speech.

Even though many educators had been aware of the existing special alphabets and spellings, and of the successful experiments conducted, invariably their use had been discontinued. It was hoped that this study would reveal some of the reasons why those attempts at reform had failed. It was hoped also that this paper could outline briefly the history of the latest attempts at teaching reading with an initial teaching medium—an augmented alphabet with a one symbol-to-one sound basis—and perhaps determine how this alphabet gained such popularity in so short a time and became so widely adopted.

Though this paper was concerned primarily with first-grade reading, a brief account of some attempts at remediation, early reading instruction, and adult education were included.

II. Conclusions

An examination of the findings of this investigation resulted in the following conclusions:

1. There has existed for several centuries an expressed need among educators and men of letters for a more consistent system of English spelling.
2. The alphabet of the English language, with its 26 letters is not truly adequate to represent the more than 40 phonemes that occur in English speech without causing some confusion on the part of the unskilled reader attempting to decipher unfamiliar words.
3. Of the existing methods of teaching reading employing the traditional alphabet, the phonetic approach comes closer to being effective, so far as analyzing new words is concerned, but the irregularities and illogical spellings of a large part of English words decrease its effectiveness and add to the difficulties the beginning reader encounters when using this method.
4. The cause of the failure of attempts at alphabet reform in past years has not so much been poor design, lack of logic, or inefficiency of the various movements, as it has been intellectual jealousy on the parts of the developers, each intent on forwarding his own development rather than cooperating with others and attempting a compromise agreement for the sake of benefiting future generations.

5. The evidence of past attempts to teach reading with augmented alphabets or simplified spelling systems indicate that this type of medium is an effective tool in simplifying initial instruction, and that among the reasons why they were not widely adopted were resistance to change on the part of the general public and educators, and poor reporting on the part of those who had made the experiments.
6. Pitman's Initial Teaching Alphabet is an efficient and effective medium for introducing beginning first grade children to reading, as was proved by the British experiment and reports of the successes in the first two years of the Bethlehem, Pennsylvania experiment.
7. A majority of the children learned to read fluently with a high degree of comprehension and accuracy with i.t.a. in a shorter time than with T.O. and made an easy transition to traditional reading material, all in the period of nine months.
8. The initial teaching medium, rather than adversely affecting spelling and independent writing, as was predicted by critics, actually makes creative writing easier and more enjoyable and, by making children aware of the sounds involved in words, helps the pupils to become much better spellers.

Although the new teaching medium has enjoyed great success in the first three years' experiments, it still remains to be seen whether or not this is the best alphabet for the purpose intended and what the long range effects in reading, spelling, and writing might be, and whether there would be, in the future, any after effects serious enough to cancel out the advantages gained by simplifying the initial tasks of learning to read. This medium is not likely to go the way of previous ones, passing to obscurity without a fair and impartial trial by sufficient numbers of children under controlled conditions. Rather, with the aid of several universities, colleges, and philanthropic groups, at the end of the experiment, whether it will be universally adopted or not, it will at least have been thoroughly tested and its true value, as a means of simplifying the reading task for beginners, be determined.

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4. Appendix A

One Teacher's Experience with an Initial Teaching Alphabet in First Grade Class

Having taught first grade for six years in a school system which employed phonics through grades one to three, I observed as a general rule that (1), superior pupils found phonics, even with its many principles to remember, a convenient tool, easily remembered and applied, which allowed him to attack effortlessly almost any word; that (2), when one rule failed to solve his problem, another was applied until he successfully identified the word; (3) when the average pupil was carefully instructed and given ample opportunity to practice the application of the principles, he could use phonics to unlock almost any word up to two or three syllables, unless it violated these principles too drastically. And even then his knowledge of phonics helped him remember the word once it had been identified for him. The poor student, on the other hand, found phonics instruction to be of little value. If he could remember the sounds of the consonants, he often was completely baffled by the various pronunciations of each vowel. How could he remember that "usually one vowel in a word is short unless it comes at the end of the word, particularly when he then must read: "no, do not hold it now"? He then had to recall that sometimes *o* said *oo* at the end of a short word, that it usually said long-*o* before *ld* and *mb*, and that before *w* it might say long-*o* or *ou*. Being baffled by the complexity of rules, he usually guessed at two or three words and then lapsed into silence, waiting to be told the word. The empirical evidence indicated that instead of their gradually learning the rules in ensuing years and gaining skills to attack words, these children often fell further and further behind, and after the more capable students were able to apply the rules almost instinctively, the slower child seldom found phonics sufficiently reliable for practical use and was dependent on memory and the use of context to identify words, *guessing* at new ones by looking at the picture or reading the rest of the sentence (if he could) and supplying what seemed to him an appropriate word, unless someone was available to help him.

My concern was shared by many others. They knew that the child could not gain real reading independence depending on only two tools, memory and context. Two others, phonetic and structural analysis, were actually the two most needed skills to attack unfamiliar words. The burden placed on the not-so-able student by the regular phonics program was recognized. Several systems had been worked out by concerned persons to simplify the task of remembering the phonetic principles, not just for the slow child, but for all beginning readers.

One system in particular appealed to me for beginners. Pictures, color clues, etc., were attention getting, but they really had little to do with the real task of reading. The phonetic alphabet showed the child what reading really was: getting meaning from symbols printed on a page, symbols that when combined stood for the thoughts of another person.

While being exposed to the other phonics aids through various reading conferences, teacher conventions, education periodicals, etc., the principle of the phonetic, alphabet came to my attention. While doing research on a paper for a graduate course, an intriguing title started me on a search for more information. I read with interest everything on the subject that could be found, and being unable to find anything that really outlined the program and explained the alphabet, I picked a few isolated names out of the text in several popular magazine articles. Correspondence with these persons produced friendly helpful replies, and soon a considerable amount of information on the subject was forthcoming, enough to convince me, my principal, reading coordinator, and superintendent that the new approach was worth trying. Since ability groups were taught in rotation, each year a teacher moving to the next higher group, and since the previous year I had had the most able group, it was my turn to have the lowest ability group. This provided the chance to try out a phonetically regular alphabet, with regular rules of spelling, on these children who seemed to gain

so little from the regular phonics series. After conferences with the other members of the teaching staff who were involved, we decided to order a phonetic reading series published in the United States and its accompanying workbooks. Also ordered were approximately 50 titles of trade books for a room library. In the meantime, for the sake of economy, and since many aids were not available, teacher-made cards, charts, etc., were prepared. By the time school opened, enough books had arrived for the class to begin, with the others scheduled to arrive later. The only thing now lacking was the class.

The Class. When school opened, the room was crowded with 35 children who had become six since April. We had hoped that the class would be kept small, and there were more children than the room could comfortably hold. The Chance-Loeb School was located in a newly developed, swiftly growing residential area, and the first grade enrollment had far surpassed the prediction based on the Feb. census. Instead of three rooms they would need four. Room had to be made.

In the meantime, the children were given the *Metropolitan Test for Reading Readiness* the first week of school, a regular procedure in the school, and the children were divided into four groups on the basis of the scores and teacher judgement. They were divided, 27, 27, 27, 23. The smallest group (with the lowest scores) was the one with whom the new method was to be tried. These children had readiness scores ranging from a high of 52 to a low of 7. (see figure 11). The class consisted of 10 boys and 11 girls. Although 4 of the children were to become six before Christmas, the greater number of the group were between 6 and 6½. Seven of them had not reached 7 when the school year closed.

Figure 11 Scores on Metropolitan Reading Readiness Test

Pupil	Age	Reading Readiness	Total Readiness
Randy	6-0	39	46
Robert R.	6-9	37	52
Cindy	6-11	36	-
Linda	6-0	35	40
Ikeal	6-3	34	41
Susie	6-3	33	39
Deborah P.	6-5	32	42
Karl	6-4	29	34
Robby	6-9	28	47
Lynn	6-1	27	32
Glenda	6-1	25	26
Lynette	6-4	24	35
Harold	6-1	23	27
Deborah B.	6-6	21	31
Clayton	6-11	21	27
James	6-2	21	26
Eunice	6-10	21	23
Tommy	6-10	18	23
Eilene	6-10	16	22
Lester	6-5	15	22
Patrice	6-4	6	7
Jearl	6-0		
Elray	6-2		

For the most part, these children, besides being young in actual age, were smaller in stature than the rest of the first grade or weighing much less than average and being shorter. The typical speech was immature, with such utterances as "me goin' to do it," common. At least half of the children were

unable to produce, or would not produce, several consonant sounds, particularly blends such as pl, spr, cl, often being able to say each sound in isolation but unable to make the combination of sounds. One child, Harold, had almost unintelligible speech. Four others, James, Eilene, Elray, and Lynn, had difficulty with a large number of consonants; James also had difficulties with vowel sounds, *u*, *a*, *au*, *ow*, all pronounced as some form of *o*. Eilene's speech was vary "lazy," for example: most of her consonants were indistinct or absent. More than anyone else, she had trouble with blends and words that had a definite "break" in the middle, calling playground, playground. Her speech consisted mostly of a succession of vowel sounds. Elray, though his speech was more precise, suffered from a double burden. His early years were spent in the Mexican section of Brownsville, Texas, and his playmates were children who spoke no English. At about 4 or 5, his father was drowned and the family moved to Houma, Louisiana, the middle of the "Cajun" country, to live with Louisiana-French relatives. At the time he came to Chance-Loeb school, after the year he had started, he had developed a distinct "Cajun" accent with traces of his previous Spanish accent remaining. He was very confused about the pronunciation of the *th*-words, and pronounced almost all vowels differently from the rest of the children. Even when helped to sound out a word, he often did not recognize the end product as a part of his vocabulary; th-r-ō-t did not sound like the "trot" he spoke of when he had tonsilitis. He also consistently used *me* for *I*: "Me gone to get a tablet to de cafeteria."

Lynn was typical of the youngest in the family who had been allowed to be the "baby"; his problem was nothing more than baby talk allowed to persist; there was no real difficulty in understanding him.

Several of the children suffered from extreme shyness: Lynn, Glenda, Susan, Cynthia, Harold, Karl. Except for Harold, who just sat in his place, these children cried a great deal during the first few weeks of school; Cynthia ran away home, succeeding in getting about half way there before she was found out; Lynn and Karl both threw screaming tantrums as their mothers were leaving, rushing from the room after them each time they left. Susan just sat in her seat "howling"; Glenda cried quietly. After a while most of the crying stopped when they became accustomed to the children and interested in what was taking place. Glenda's main source of anxiety was not fear of her mother's leaving, but her inability to write her own name.

Beginning the Alphabet. On Sept. 22 the *Reading Readiness Book 1* of the *Early-to-Read* series was begun. By this time most of the children (except Karl) had stopped crying and settled down, already making friends on the playground, not following the teacher on duty anymore. The main problem was the short attention span of the children, although the composition of the readiness book did much to keep the children interested. The exercises had variety and immediately the children were able to "read" sentences to the class and teacher. (See Fig. 12). Also, they began to listen for sounds at the very first, having to choose between words containing a certain sound and words without that sound, at the same time referring to the symbol that stood for the sound.

At the end of the first week a test on visual perception was given with very satisfactory results: Ikeal and Deborah P. Missed none, Randy, Eunice, Robert L. missed only one out of 30 choices. Only three missed more than 7.

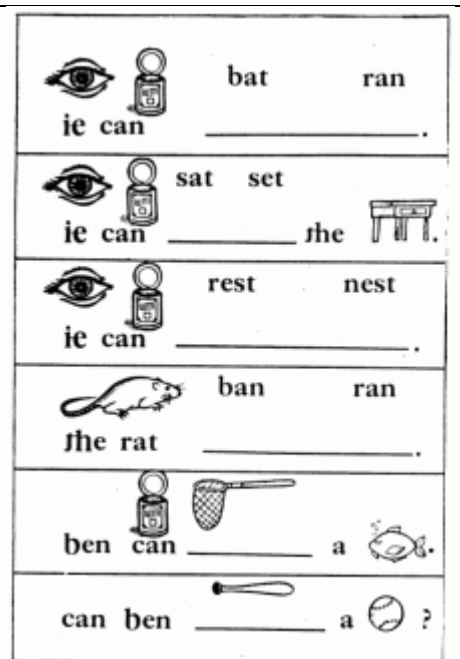


Figure 12. Page from "redy for reediñ", Early-to-Read series.

On Oct. 9, the first official evaluation was made (see Fig. 13).

Figure 13

Results of first test on Visual Perception, Oct. 9, 1964

Pupil	Part 1 score	Part 2 score
Randy	absent	
Robert R.	8-N	2-(BN)
Cindy	8-N	1-(BN)
Linda	5-N	1-(BN)
Ikeal	9-N	2-(BN)
Susie	5-N	1 (BN)
Deborah P	8-N	2 (BN)
Karl	6 (N)	0 (BN)
Robby	9 (N)	4 (N)
Lynn	7 (N)	2 (BN)
Glenda	8 (N)	2 (BN)
Lynette	9 (N)	0 (BN)
Harold	4 (N)	2 (BN)
Deborah B.	9 (N)	2 (BN)
Clayton	8 (N)	2 (BN)
James	8 (N)	4 (N)
Eunice	9 (N)	3 (N)
Tommy	9 (N)	3 (N)
Eilene	7 (N)	1 (BN)
Lester	7 (N)	2 (BN)
Patrice	8 (N)	3 (N)
Jearl	4 (N)	3 (N)

Elray added Nov. 4

The initials N, BN, stand for normal and below normal respectively. 3 to 4 is normal for part 2.

On the first part of the test, every child scored in the normal range; on the second half, so many scored below normal that an additional unit on readiness was decided necessary before proceeding to the next new concepts.

By Oct. 16th the children had learned five consonant sound-symbols (*p, t, b, r, s*) and two vowels (*a, e*). It was found that the children readily accepted the idea that the words contained the sounds that the symbols stood for; with a little prompting and encouragement, they were sounding many small words. A few were guessing at words, saying words that had altogether different sounds from what the symbols represented.

On Oct. 22, the children sounded words containing the symbols *i* and *t*, preceded by another consonant very successfully. They were very elated, surprised at themselves for being able to read them. The most immature member of the class, Jearl, knew every symbol and its sound, either when given the sound and asked to locate the symbol or shown the symbol and asked to make the sound.

The principal shortcoming of the majority of the children at that stage was lack of self discipline and short attention spans. Each lesson was often interrupted by the need to catch a child's wandering attention and bring him back to the job at hand.

At that time a group of children, eager to learn, began reading in the small paper backed Downing Reader, *Paul, Hulloe and Goodby*, using their knowledge of sounds to attack the very few words

the first ones contained. The room was divided into three groups for work in the "reading circle" a short time each day; the children were grouped according to how well they remembered the sound-symbols and were able to synthesize them into words. They were grouped in the following manner:

Group 1 Most advanced	Group 2 Average	Group 3 Below Average
Robby	Ikeal	Jearl
L yne tte	Deborah B.	Susan
Deborah P.	Randy	Karl
Tommy	James	Harold
Cynthia	Eunice	Patrice
Glenda	Clayton	Linda
Lester	Lynn	Eilene

The grouping was only tentative and changed from day to day, particularly among the middle group.

An informal test on Nov. 4th found seven children scoring below 70%. Five made perfect scores and three missed only one part out of 15. On that day, two members were added to the class: Elray, and Robert R. who had become ill with hepatitis after three weeks of school and had been out for six weeks. Having missed all of the first book of the regular phonics series, he could not be confused by the introduction of the new alphabet. We also felt that it would be easier for him to learn 8 symbols and 8 sounds than 15 symbols for 10 sounds. He caught on very quickly to the sounds of the symbols already introduced and began immediately to apply new concepts.

At the same time, Deborah Baker withdrew to enroll in a school in a nearby town.

By Nov. 10th, except for Jearl, Linda, Lynn, Karl and Patrice, all children were able to go to the board and write words that were dictated to them with little or no difficulty. Words dictated contained the vowel sounds *a, e, or i*, the consonant sounds *t, d, b, r, s, n, and l*. They could spell any one syllable word presented to them if they knew the symbol-sounds involved.

On Nov. 12th the class finished the readiness book and began *Work-Book 2* and *3*, the second workbook, in which the children are introduced to most of the remaining symbols. When half of the *Book 1* section was finished, the children began to read the *Book 11* text. Most of the children in the two more advanced groups, had already begun to read the *Downing Readers* in the library. They had very few words, many of which were easily identified, containing symbols the children already knew. When they encountered words and symbols they did not know, they asked for my help, which was cheerfully given.

It was difficult at this time not to push the children into reading more, since most of the other rooms were doing a lot of reading, but I was determined to follow the manual's instructions as closely as possible.

By the end of Nov. the children were reading small stories from the board that were composed of words they could easily attack. They were also reading the same stories in little booklets reproduced by mimeograph. They were very proud of taking these stories home to read to their parents. Several were very ready to start more reading, particularly Robby, Deborah P., Lynette, and Robert B., who had by that time, caught up with and passed nearly everyone in the class. Patrice and Jearl did not yet realize what reading really meant; Patrice "reading" from memory (even though she knew the

sounds of the various symbols; Jearl unable to read when called upon, but able to tell words to others who could not identify them!

Elray was beginning to learn his symbols and read nicely the little stories.

By Dec. 3rd 20 symbols had been introduced, 7 vowels, 13 consonant symbols. One week later, the readiness section of the *Workbook for Book II* was finished. The top 2/3 of the class began to read in *Book II*, the remainder (James, Jearl, Harold, Karl, Susan, Linda, Patrice, and David, the new boy) were given a further period of readiness. Jearl was not ready to work with even the slowest group (there were four groups) but seemed happy about being included and it was decided to leave him there. (The counselor tested his I.Q. during this time; he scored in the low seventies). On the whole, the children in this group tended to be slow, disorganized and inattentive, except for Karl, who sat, wide eyed with interest, but too shy to respond when called upon.

A vocabulary check (see Fig. 15) given on Jan. 13th resulted in scores of 75% or above for every child except Jearl, who scored 20. (about this time we began serious discussions about transferring Jearl to special education).

The first group had reached the fifth story in *Book III*; by the first of Feb., the second group was reading the last story in *Book, II*. The third group was reading the next to the last story in *Book II*; group four, still on "lost," the fifth story.

The top group was reading fluently with good expression, recognizing words instantly, never pausing to "sound" words. The second group was more halting, seldom needing help in sounding, but not yet good at sight reading. Glenda, Eunice and Cindy were getting smoother. The two low groups could not as yet be considered to be really reading. They could, for the most part, identify the words, but each time the word was encountered, it had to be resounded. It took much questioning, reading, and rereading, to ascertain whether or not the children had got the real thought of the sentence or paragraph.

biek	kiet	yard
kiet	lark	car
around	yard	tell
lark	heer	bell
yard	car	nekst
down	biek	heer
scuter	around	oever
heer	scuter	oepend
car	down	doe
fije	thar	did
thar	flie	windoe
garn	oever	wijh
oever	garn	can
bauil	bauil	not
thru	yar	run
happend	yu	ried
what	dig	oe
nekst	rig	noe
wijh	buk	bauil
dig	lark	bell
windoe	thru	cat
ringig	thru	car

Figure 15. Vocabulary check given to class Jan. 13, 1965.

As was usual, the first week of the second semester brought the time for I.Q. tests to be administered to the children. The *Otis Quick Scoring Mental Ability Test, (Alpha B. form)* was used, the results of which were not too much of a surprise (see [Figure 16](#)). The ranking corresponded rather closely with the grouping in reading, with a few exceptions, which might have been accounted for by the age differential. It was noted that all five of the children who read in the most advanced group fell in the top 8 scores; of the most immature readers, all 5 of them fell in the lower 8 scores; 3 of them among the 4 lowest scores.

The mean I.Q. of the group was 95, with a spread of 32 points, the high score 111 (Deborah P.) and the low 79 (Jearl). The median score was also 95.

I noticed that this group of children scored much higher on the *verbal* section of the test than on the *non-verbal*. (an average score of 47 for verbal, 30 for non-verbal) which seemed to account for their tendency to do poorly on completely independent class work. Perhaps the almost constant instructions delivered by the tester in the verbal portion prevented the wandering of attention of the

children, where the complete quiet and my refusal to answer questions after instructions were given, allowed the more immature ones to lose interest and dawdle on the non-verbal portion.

Figure 16

Scores on **Otis Test of Mental Maturity (I.Q.)** and correspondence to the performance of the children in **Reading** at the time of the test.

pupil	age	I.Q.	Reading group
Deborah P.	6-10	111	I
Glenda	6-6	109	II
Robby	7-2	105	I
Robert R.	7-2	104	I
Ikeal	6-8	103	II
Lynn	6-6	99	III
Lynette	6-9	98	I
Tommy	7-3	98	I
Susie	6-8	96	III
Cindy	7-4	95	II
James	6-7	95	II
Randy	6-5	94	II
Clayton	7-4	94	II
Harold	6-6	94	IV
Eunice	7-5	91	II
Linda	6-5	90	IV
Elray	6-7	89	III
Patrice	6-9	88	IV
Karl	6-9	87	IV
Eilene	7-3	86	III
Jearl	6-5	79	IV

By Washington's Birthday the most advanced group had reached page 50 of *Book IV*. They were thrilled by the stories in that book. These stories in no way resembled the ones usually encountered in the first grade primer. The vocabulary load was almost unbelievable compared to the small number in most primers. The subject matter was very different. Though the stories generally concerned children of the early school years, the stereotype child was absent. These children did not go to Grandma's and collect eggs or ride a tricycle, or go to the zoo. They lived with the circus, operated (unsuccessfully) a lemonade stand, attended a costume party. The adults involved were astronauts, skin divers, or brave old men who visited haunted houses.

This group of children was already making the transition to regular reading materials, often coming up with some material and telling the teacher, "This word says ----- Mrs. Iles?" When they began to read their friends' books on the bus or to tell the teacher "Mrs. Iles, I read two pages of *Huckleberry Finn* to Tommy," T.O. library books were made available, as well as the pre-primer and primers of the regular reading series. Comparing notes, I found that the children in this group read the primer with almost the same ease that the "B section" children in the next room were reading it.

In the meantime, Group II was gaining in fluency, working hard on quick sounding of words, trying not to sound audibly before reading the word. They were quite good, almost as good as Group I, in attacking new words independently. They were consciously trying to improve their "expression," spending free time at their seats reading stories silently so that they might read better orally later.

The first transliterated version of *Botel's Survey* was administered at the end of the second week in March. The results (see [Figure 17](#)) were gratifying if not surprising. In this group of immature, for the greater part, slow learner, there were two that scored at 4.0, four that scored 3-2. Two that scored at 2-2, one that scored at 2-1, two that scored at first reader level, three who scored at pre-primer level, the remaining eight scoring between 65 and 5. Even the bottom group, if not limited by time, could have pronounced far more words, but I was determined that these children should have no special advantage and kept the time limit per word at five seconds. At no time during the test did I give any hint as to whether the word had been pronounced correctly since the children were to be tested again at the end of the year.

Six weeks later, on May 4th, they were tested again on the same transliterated version of the test. This time the gains made by several of the children were surprising (see [Figure 17](#)). Several had progressed a whole year as far as the test was concerned, but perhaps this did not really hold true. Probably the children had merely learned their symbol sounds more clearly and confidently in the meantime, and to synthesize the sounds into words more quickly. When the words were transliterated, as long as they were within the child's speaking or understanding vocabulary, lie could attack them successfully. In the whole text, the only word Deborah P. missed was *naval* and the reason she missed it was that she pronounced it with the accent on the second syllable in a very questioning tone, indicating that she did not understand its meaning.

Figure 17
Results of Botel's Survey given in March and May, 1965

pupil	first test	second test	gain
Deborah P	4 ⁰	4 ⁰	Top score
Robert R.	4 ⁰	4 ⁰	on the test
Lynette.	3 ²	4 ⁰	1 level
Bobby	3 ²	4 ⁰	1 level
Lester	3 ²	4 ⁰	1 level
Tommy	3 ²	3 ²	none
Cindy	2 ²	3 ²	2 levels
Eunice	2 ¹	3 ¹	2 levels
Glenda	1 ³	3 ¹	3 levels
Randy	1 ³	2 ²	2 levels
James	1	2 ²	4 levels
Eilene	1	2 ¹	3 levels
Clayton	1	2 ¹	3 levels
Karl	-1	1	1 level
Lynn	-1	1 ²	2 levels
Patrice	-1	1 ³	3 levels
Ikeal	-1	1	1 level
Elray	-1	1	1 level
Susan	-1	1	1 level
Harold	-1	1	1 level
Linda	-1	-1	none

Particularly pleasing were the results of the majority of the children who had fallen below the pre-primer level on the first test. All of them, except Linda, had progressed at least one level, Susan and Lynn rising two levels, and Patrice, three (At that time, Patrice had become fairly regular in attendance and was showing fine progress, only to begin to miss two and three days again toward the close of school). Of the group, five children scored at grade 4, three at 3-2, and one at 3-1, two at 2-2, two at 2-1, three at primer level and four at pre-primer. Only Linda seemed to make no progress; she scored 5% of the pre-primer words in March, 10% in May.

About the same time that the *Botel Test* was given, the *Gray, Votaw and Rogers Standardized Achievement Test* was also given. The reading portions of the test were given twice, or rather a transliterated version of one form was given, a standard version of another. The range on the transliterated version of the reading section was from 2.4 level too. (See [Figure 18](#)). While these do not seem to be particularly good scores, it must be kept in mind that this is the lowest section (D section) of the first grade. Normally, many of these children would not be reading at all. As far as the standard (T.O.) version was concerned, only the scores of the children who had made the transition were considered. Deborah and Robert scored higher on the standard version (Deborah by only 1 point) than on the i.t.a. version but the others read the material confidently indicating that they had made the transition effectively enough to show that reading in that medium was not too difficult for them. A comparison of scores in reading showed:

pupil	i/t/a score	gr. level	T.O. score	gr. level
Deborah P.	38	2.4	39	2.5
Robby	38	2.4	30	2.0
Lynette	30	2.0	26	1.9
Robert R.	30	2.0	41	2.6
Tommy	23	1.8	18	1.7

On the whole, the experience with i/t/a was enlightening and satisfying. From the beginning, I had not expected to accomplish miracles. I had been looking for a way to teach children with limited powers of attention, memory, and concentration to be able to attack new words effectively, unburdened by the irregularities and inconsistencies of our spelling encountered in even the most systematic phonics program. With Pitman's alphabet and its regular spellings, the learning burden imposed on the child was far less. He was required only to recognize the symbol and associate it with its sound. Remembering its name was unnecessary. Even the slowest child in the room, once he recalled the sound the symbol stood for and after sufficient practice, could identify almost any word in his readers. The children were seldom told words when reading, but when unable to recall a symbol sound, were helped to recall it and to blend all the sounds to make the word. Wild guessing, which is common in the poor reader, seldom occurred.

Figure 18
Reading scores on transliterated version of Gray-Votaw-Rogers General Achievement Test, May, 1965

pupil	Vocab.	Compre.	Av. Reading	Educ. Gr.
Robby	18	20	19	2.4
Deborah P.	18	20	19	2.4
Robert R.	13	17	15	2.1
Lynette	15	15	15	2.1
Tommy	13	10	11.5	1.8
Cindy	11	12	11.5	1.8
Lester	12	10	11	1.7
Glenda	7	8	7.5	1.5
Eunice	4	10	7	1.5
James	9	5	7	1.5
Clayton	5	9	7	1.5
Eilene	2	7	4.5	1.3
Ikeal	4	4	4	1.3
Randy	4	3	3.5	1.3
Karl	3	4	3.5	1.3
Elray	4	2	3	1.3
Harold	4	2	3	1.3

Susie	4	1	2.5	1.2
Lynn	4	1	2.5	1.2
Patrice	2	0	1	1.0
Linda	1.0	1.0	0.5	1.0

The regularity of the spelling made independent writing a much easier task than was usual in a low section of the first grade. The children were not afraid to attempt to spell any word they needed, their misspelling usually occurred when they mispronounced a word. An interesting story by Lester ended with his telling that when he grew up he would be a "train driver" and take his "kids" to "coulufoinia." When the class was making a picture dictionary for "next year's children," James drew the letter W for his page to make. He happily went his way, writing, cutting, pasting, and after a few minutes proudly brought the teacher his completed pictures of a rock, a rabbit, a rooster, and a rope, with the captions *woc*, *wabbit*, *wooster*, *woep*.

In previous years, getting the slow children to write captions and sentences had been a very difficult task. Picture dictionaries, word lists and other aids had been available but of little use to them. They waked slowly, were not good at remembering how to spell even the most familiar and simple sight words. The children reading in *i/t/a* did not seem to suffer from the same difficulties. Where last year's children had struggles over short captions, early in the year these children were writing sentences. By shortly after Christmas, in many cases, the sentences had become stories. The children wrote about many things; what they got for Christmas, what they liked or disliked, what they wanted to be, or just stories that they made up. Unlike the more advanced children, though, generally these had to have a hint, a discussion, some activity leading up to the writing exercise, whereas the brighter children – even within this class – wrote spontaneously, just for the fun of writing, like Robby who, looking up from his tablet said, "Mrs. Iles, I am going to write the longest story in the room!" and proceeded to write one *six pages long*, a story that had continuity, that really said something. Such a thing would be unthinkable from a "look-n-say" class.

One type exercise that the children got particular pleasure from was one in which the beginning of a scary was put on the board and the children each copied it and then added their own endings. These began with a simple sentence like "When I grow up I would like to be . ." or were sometimes a more complicated one like "One day a lady said to her little boy, 'I must go to town. Be good and do not get into trouble.' "As soon as she was gone the boy . , . " The endings often gave you insight into how six-year-old minds work, or at least, how these particular six-year-old minds worked. Invariably the little boy did a (to him) terrible thing; never did he mind his mother. He spilled maec-up, broke battles of purfyoom, what nots, cheers. The smallest boy in the room wrote, "When I grow up I want to be in the second grade."

The workbooks that accompanied the readers were designed to encourage independent writing; often there was a picture with an interesting and thought provoking subject, varying from children cooking while mother hung out the wash to a picture of a witches castle with a beautiful captive princess and a handsome armored knight approaching on horseback.

About one picture, Cindy wrote:(transliterated into T:O.)

mother's helpers

one day a girl was making a cake for lunch. to eat. father said oh boy! we are having a cake.

Cynthia

Discussing growing up, Deborah had this to say:

i want to build a house and i want to buy a car and to buy some clothes. and i am going to be a mother and be a good mother.

On the same subject, Robby said:

i wish that i was a policeman because i like to be brave and like to wear a gun.

After a movie on the life cycle of a moth, some of the children wrote:

the big green caterpillar. the caterpillar eats leaves to live and to grow and he lived in a branch of the tree. Clayton

the boy had a caterpillar. he put it in a jar to stay. they made him a house to live in. they had to give him some water and food and it was green. Eunice

i liked the big green caterpillar because it was so good and it was so interstin. a boy found a egg that was a caterpillar egg it turned into a caterpillar and soon it began to grow it. turned into a moth. it flew in the night. Robby

the caterpillar

this caterpillar hatcht out of the egg. this egg came from a tree and the caterpillar turned intoa buderfly. Lestor

Another movie, *Madeline*, inspired the following:

madeline

there were 12 sisters. they were all alike. they had a mother that lookt like a doll. she cut on the light and went in the room. one of the littlest ones were crying. she went to the hosbitl. she showed them that she had a skor on her tumy. they said thaer going to come viset her agen.

woodin't you? Deborah P.

madeline

a mother had twely littl girls but she luvd eech uther very much but wun littl girl was sic and the dokter had to taek her to the hospitul so he would see war was rong with her. Robert R.

madeline

wuns there was a woman that had 12 children. the uther was sik and in the hospidl. the uthers wer crieing too becaus thaer sister was in the hospidl. Lynette

As the time neared for school to be out, the children began to tell about, and to write about what they would do during the summer. Randy wrote:

our vacation

this summer when school is out we will feed the fish.

For Randy, this was quite an accomplishment; though his mind was quick and his imagination good, his writing was slow and laborious. He seldom finished anything. Others went into detail, like Tommy, who wrote:

this summer when school is out we will go to the hotel and swim in a swiming pool. we're going to see John and Joe.

i would like to go to the same place where i went before. we went into a cave. we saw little bidy sharp things on top of the cave. Tommy

Lynette and Robby told about where they would like to go:

make believe vacation

we will go to colorada and travel in a car and go to wurlds fair and luvly places wherever we go. we might go all over the place and hav the nicest luvly time.

i would like to see the hole werld in mexucoe and nue york. i'l go on a hors and kampf out at niet and hunt of dae the nexst morning.

Elray proudly turned in his story about what he liked to do, every word easily read, no misspellings.
school

i like to go to school. i like Ikeal and Lynn. i like to eat. i like to play.

The close of school found the children at all stages of the reading program. The top group had read all but the last five stories in the last book of the series, *Book VII*. The next highest group had finished *Book V* and was making transition (formal, for most of them were already reading in T.O. library books). In *Book VI* they would read many stories in i/t/a, stories to aid them in fluency and independent word analysis. No new principles or concepts dealing with the *act* of reading were involved, tho the stories introduced many new words and ideas to aid vocabulary and experience.

The third group had finished *Book IV* and was ready to start *Book V* – the one where capital letters are introduced; transition was to be begun in the Fall after a review of previous literature. Several of these children already recognized many of the capitals as the "big" symbol for the ones they already knew.

The fourth group, consisting of Harold, Karl, Linda, Deborah P., and Patrice (who had returned a month before school was out) had reached the approximate middle of *Book IV*. These children were not strong, skilled readers. They could hardly be called adequate readers, but their knowledge of symbol-sounds was good and they could successfully attack words *independently*. But they needed much practice in quick recognition of words and reading to answer questions. In the Fall, they (except for Linda and Patrice, who were being retained) would probably need a longer period of review and practice before they could snake the transition. They were to continue with the rest of the group to the second grade. I felt that, though they were not as competent as the majority of the class, harm might be done to make them repeat so much material that they already knew. As for the two who were to remain behind, their progress had been so limited that it seemed advisable to allow them to repeat the grade. Patrice, had she not been absent so very much, probably could have progressed satisfactorily, almost from the frost, though, Linda's immaturity was very noticeable, even in a class of immature children. At the end of school, she was still confusing the sounds of *t* and *s*, almost invariably sounding one for the other.

On the whole, the *Early-to-Read* reading series was very good and the materials in the accompanying workbooks appropriate and effective, altho some of the work was rather difficult for the lower .one-third of the class, requiring too much of my time being spent in giving instructions and checking so be really independent work. For the slower children, I found it necessary to substitute my own exercise, geared more to the capabilities of these children. For instance, an exercise that asked the child to remember to do two or more different things on one page was confusing. One page, where the child had to find all the contractions and encircle them, -then to underline one of two words in brackets in each sentence and complete it, resulted in total confusion. For the abler student, these pages, and others of the same type, were excellent. Once instructions were given, the children had work that required that they do some real thinking to complete.

As stated before, the stories in the books were far above any others encountered previously in first grade reading materials. They were exciting, suspenseful, funny, and varied as to subject matter. The illustrations were unusual and full of variety. They were not only enjoyed by the children in the i/t/a room but also by the other children in the first grade. They reaped the benefits of the stories in the "new alphabet" through a chance happening in their regular class.

One day, while the "A" section was busy making an alphabet book to take home, one child in the "B" section came across an article on Pitman's alphabet in a magazine used for cutting and pasting. He asked his teacher's permission to put "Mrs. Iles" alphabet on his 'I' page, since i/t/a started with that sound. On being given permission, he cut it out, and then informed his teacher that he could

read the illustrative material accompanying the article. Soon several of the children became interested in the material and the teacher from the "A" room decided to show the *Early-to-Read* books to the children. The children received the books with much enthusiasm; only a word or two was all that was needed to help them solve the puzzle of the few strange-appearing symbols, most being self-explanatory to these children trained in phonetic analysis. For two days they spent their free reading time enjoying the lovely stories in the books. On being asked how he liked the books, one very bright little boy replied, as he held his finger between the pages so as not to lose his place, "Oh, at first it looked kind'a funny, but after the first page it was O.K.!" He, in two or three days time, read all of *Books 5, 6, and 7*, telling the i/t/a teacher about the "good stories" with shining eyes. One little boy in "B" group, a particularly avid reader, also became interested in these books, coming often at his free time to borrow one to read. He even spent one afternoon reading period reading with Group II in the i/t/a classroom, having no difficulty with the words, reading aloud in his turn, fluently and with no mistakes, yet he had had no formal teaching in i/t/a.

Some work was also done with an older group of children on whom almost every type of remedial work had been tried. Their science teacher was very concerned because the science books at seventh grade level were beyond their reading levels and above their understanding. In his search for materials, he mentioned his problem to me and I agreed to try to help.

The children were in the seventh grade and ranged from 12 to 17 years old. These children read, for the most part, two to five years below their grade level, many having a reading score of 2.3 or 2.5. Several were definitely mentally retarded, the others apparently slow learners.

After learning the new alphabet, these children were soon reading: the books with great interest, unembarrassed by the usual first and second grade subject matter. There was nothing that smacked of primary school in the story of a sunken treasure and a brush with a shark; the American Indian legend of the first woodpecker was one that might be included in any seventh grade reader. Only one member of the class did not join in the class; he answered every question, every discussion, with "I don't understand; I don't know what you are talking about." (he was severely retarded, but his parents refused to have him placed in special education). The rest enjoyed this new experience tremendously, particularly spelling contests and other exercises requiring that they supply missing symbols.

When the pupils had been studying the new orthography three weeks, the science teacher began to discuss with them the possibility of their writing, in i/t/a, some materials for the first grade pupils to use in their science class. His suggestions were met with great enthusiasm. With a little preparation they began. The librarian helped; books at lower reading levels were borrowed, subjects were chosen and "research." began. The more able students chose several subjects. Booklets, some containing only 2 pages and an illustration or two, were produced on a wide variety of subjects from *Birds* to *Weather*. Some were beautifully illustrated, several were very informative, almost all were willingly and enthusiastically done, altho the very slow student often had so much assistance from a friend or teacher that the work was hardly his own. Still, he had a feeling of having really made something of value for the "first graders," and the "first graders" enjoyed looking at and reading the booklets.

The reading teacher joined in and let the boys and girls read in the i/t/a books at reading period. She was very impressed with the new interest of the group in reading. Unhappily, personal reasons caused this teacher to retire at the middle of the semester; the work in the new medium was stopped and no formal testing was done to see what the effect was, if any, on total reading of the children.*

*Editor's note: In the next part (the conclusion) of the appendix, we have edited it spelling-wise to demonstrate a minimal change system of spelling simplification similar to the SR1 and SR2 proposed by Harry Lindgren of Australia. This merely omits the unnecessary silent letters in almost 1000 common words and also stabilizes the silent terminal-e so that it reliably indicates the previous vowel has the long sound. Naturally this terminal-e is omitted from such words: *have, give*, where the vowel is not long.

While this limited change is not enough to satisfy the spelling reform purists, it may be acceptable to many educators who realize that these two types of anomalies are the cause of much confusion and a handicap to teaching reading with phonics. This is merely a plea for tolerance on the part of teachers for their pupil's sensible and logical spellings when these reflect correct pronunciation.

This scheme, applied to the conclusion of the appendix starting here would change the spellings in only 53 words out of over 1000. This amounts to less than one change per line in the 60 lines concerned – hardly enough to cause any disturbance in the reading habits of the adults who will read it, yet enough to show the possibilities of some worthwhile and sensible changes.

Somebody has to start it sometime, somewhere, somehow, or we'll never get out of the mire that bogs down progress in reading

Conclusion

All persons concerned felt that the years work with i/t/a in the first grade had been worthwhile, but that one year's trial was not enough to draw any real conclusions from, and it was decided that the new medium should be tried in all sections of the first grade, possibly over a three year period, before any opinion was formed as to its effectiveness, or any decision was made concerning adoption or rejection.

As far as I was concerned, I found several decided advantages to the system over other conventional phonics programs, among them, the following:

1. When this group was concerned, not having to learn a name as well as a sound-symbol simplified symbol-sound identification.
2. The consistent spelling made for more consistent sounding, practically all of the children had confidence that they were capable of figuring out what a given group of symbols meant.
3. The simultaneous: reading-riteing activities was effective; the children automatically connected with the symbol its sound, particularly since the symbol was referred to only by its sound.
4. The riteing-reading activities and the consistent spelling made sentences and story riteing easier with the results being better sentences and stories than at normally expected at this level.
5. The wide variety of materials encountered in reading did much to improve the speaking vocabularies and enrich the vicarious experiences of the children, something particularly needed at this level.

At the same time there were several recommendations that could be made to future teachers, such as:

1. That more time be spent on quick recognition of words, that children's confidence in recognizing whole words, once the initial identification is made, be strengthened. Too often the slow child does not trust himself and his memory and insists on sounding each word out every time he meets it. This affects the speed and understanding of the child.
2. That the children be allowed to proceed through the work- as well as readers at their own rates of speed. Some of the materials should be supplemented and simpler versions of each type of

exercise done by the slowest group before the more difficult materials were attempted. In the first experiences, all the children were kept together through the readiness and *Book 2* and *3* workbooks. Even in a so-called homogeneous classroom, this caused problems.

3. That even more library books be made available, in both i/t/a and T.P. so that each child might find many books on many subjects to interest him. The approximately 50 available i/t/a titles, while they were read many times, did not present as wide a variety of materials as needed. Steps were taken to more than double the number of i/t/a titles available for the following year's class, others to be added as they were published.
4. That the slower group of children not be expected to complete the program in only one school year; delaying the transition until the end of the second grade, giving the children added time to gain confidence and fluency would probably pay off in the end.

5. Appendix B

The following is a list of library books used by the special class for independent reading. While some were originally written in i/t/a, most are transliterated versions of regular T.O. library books. Where possible, the date quoted was that of the i/t/a version, otherwise, the copyright date was given. Most of the books were inexpensive (35¢ to 50¢ paper backed books, though several were hard-backed books comparable to regular classroom library books or books for home consumption.

Birdwell, Norman. *Bird in the Hat, Clifford the Big Red Dog, Zany Zoo*. New York: i/t/a Pub. 1965.

Carruth, Jane. *Fun with Sally books; Sally and her Puppy, Sally on Holiday*. London; i.t.a. Pub. 1963.

Cook, Bernadine. *The Little Fish that Got Away*. New York: i/t/a Pub. 1965.

Downing, John. *The Downing Readers: Book 1, Paul; Bk 2, Sally, Bk 3, Hello & Goodby; Bk 4, Up the Tree; Bk 5, Come Here Jet; Bk 6, Paul's Bird Table, & Going to School*. London: i.t.a. Pub. 1963.

Clifford, Eth & David. *Your Face is a Picture*. Indianapolis: Seale Co. 1963-6.

De Caprio, Annie. *Library set 2: One, Two; Getting; Willie and the Whale; The Lion & the Deer; The Rabbit & the Turtle; The Bus from Chicago*. New York: i/t/a Pub. 1965.

Elkin, Benjamin. *Lucky & the Giant*. New York: i/t/a Pub. 1965. Gagg, M.E. *The Party*. London: i.t.a. Pub. 1964.

Gagg, M.E. *Helping at Home*. London: i.t.a. Pub. 1963. Gardner, Keith. *The Adventures of the Captain Rov: Bk 1, Diamond; Bk 2, The Five Men; Bk 3, The Rescue*. London: Sir Isaac Pitman, 1962.

Holland, Louisa. *David and Joan on Holiday: Bk 1, Packing for the Holiday; Bk 2, Off to the Seaside; Bk 3, At the Seaside; Bk 4, A Picnic; Bk 5, Sea-Side Shopping; Bk 6, Going Home*; Bath, Eng.: Pitman Press, 1962.

Holland, Louisa. *Pitman Picture Story Books: Bk 1, Meet David and Joan; Bk 2, Playing at Mothers and Fathers; Bk 3, Shopping; Bk 4, Sally and the Dog; Bk 5, Sally and the Balloon; Bk 6, Tim the Rabbit; Bk 7, Tim Goes for a Walk; Bk 8, Thomas the Tortoise; Bk 9, Thomas Goes for a Walk; Bk 10, Tea in the Garden; Bk 11, Sally and the Cat; Bk 12, Tim and Thomas*. Bath, Eng: Pitman Press, 1956.

Geen, Betsy. *Sir Abernathy, the Cat*. Indianapolis: Seale Co. 1961. Trfliday, Sally. *The Little Yellow Car*. London: i.t.a. Pub. 1963. Huett. Ivy.H. *Bolbo Keeps Smiling; Tales of a Little Pig*. Path, Eng. Pitman & Sons, 1962.

Jardine, Maggie. *Library set 2: Up and Down; I Need*. New York: i/t/a Pub. 1965.

Ladybird Book of Pets. London: i.t.a. Pub. 1964.

Langner, Nola. *The Adventures of the Three Blind Mice*. New York: i/t/a Pub. 1965.

Lexau, Joan. *Olaf Reads*. New York: i/t/a Pub. 1965. Mazurkiewicz, Albert J., & Harold J. Tanyzer. *Dinosaur Ben*. New York: i/t/a Pub. 1964.

Penn, Ruth Bonn. *Simply Silly*. Indianapolis: Seale Co. 1964. Parry, Voreena M. *The Party that Went Wrong*. Bath, Eng.: Pitman & Sons, 1962.

Peterson, Holly & John. *Tony's Treasure Hunt*. New York: i/t/a Pub. 1965.

Pilgrim, Ann. *Naughty George*. Leichester, Eng.: Brockhampton Press, 1961.

Pilgrim, June. *Mrs. Squirell & Hazel*. Leichester, Eng.: Brockhampton Press, 1961.

Robinson, Joan G. Teddy Robinson. London: Geo. G. Harrop, 1962 Seymour, Dorothy Z. Library set 1: *The Rabbit; The Tent; The Sandwich; Ann Likes Red; Stop Pretending; The Pond; Ballerina Bess; Bill & the Fish; Big Beds & Little Beds; Brad & Nell*. New York: i/t/a Pub. 1965

Stephens, Karen. *Library set 2: Jumping*. New York: i/t/a Pub. 1965.

Tanyzer, Harold J. & A. J. Mazurkiewicz. *Houses*. New York: i/t/a Pub. 1964.

Taylor, E..M. *Teddy & Mickey's Adventures at Briton; Teddy & Mickey at the Seaside*. Bath, Eng.: Pitman & Sons, 1962.

Thwaite, Ann. *A Seaside Holiday for Jane & Toby; Toby Stays with Jane*. London: Constable & Co. 1963.

Ward, Lynd. *The Biggest Bear*. New York: Pitman, 1942 (T.O.)