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The Description and Development of the Initial Teaching Alphabet

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THE DESCRIPTION AND DEVELOPMENT OF

THE INITIAL TEACHING ALPHABET

(TITLE)

BY

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B.S. in Ed., Eastern Illinois University, 1965

PLAN B PAPER

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE MASTER OF SCIENCE IN EDUCATION
AND PREPARED IN COURSE

Education 528

IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY,
CHARLESTON, ILLINOIS

1966-67

YEAR

I HEREBY RECOMMEND THIS PLAN B PAPER BE ACCEPTED AS
FULFILLING THIS PART OF THE DEGREE, M.S. IN ED.

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_5-12-67_
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TABLE OF CONTENTS

INTRODUCTION

In America today eleven million people of age 18 or over cannot read or write. Furthermore, the Office of Education estimates that of the thirty million boys and girls who will be seeking employment in this decade, two million will not have gone beyond eighth grade and seven million, or nearly one-fourth, will not have finished high school.[1]

In England the statistics of the Minister of Education show that one in four fifteen-year-olds is either backward or semi-literate.[2]

Following World War II, Sir James Pitman, a member of the House of Lords of England, felt that steps to reduce high illiteracy rates were urgently needed. In 1954 he introduced the Initial Teaching Alphabet, commonly known as i.t.a. This alphabet, which has a one to one letter-sound correspondence, was designed for use by first grade students during the initial stages of learning to read. Pitman reasoned that children, once they had developed fluency and confidence with i.t.a., could transfer their reading skill to traditional print with its many irregularly formed words.

Pitman's idea that reading failure in the early years is an important cause of retardation in school has support from studies and noted authorities.

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[1]John L. Burns, "Our Era of Opportunity," Saturday Review, (January 14, 1967), p. 37.

[2]John Downing, The Initial Teaching Alphabet, (New York: The Macmillian Company, 1966), p. 5.

Studies indicate that ninety-nine per cent of first grade failures, ninety per cent of second grade failures, and seventy per cent of third grade failures are due to poor reading.[3]

Dr. Calvin Gross, former New York Superintendent of Schools, states: "Once a child can read well, the door is open to other learnings. If he cannot read, he finds locked doors for the rest of his life."[4]

Educators, in search of an answer to the reading problem, have been engaged in testing the Initial Teaching Alphabet in order to answer such questions as: Can i.t.a. children transfer their knowledge to traditional orthography? Will the i.t.a. taught child do as well as the t.o. taught child after transition to traditional orthography? Are there indications that the passage of time after transition may aid the i.t.a. taught child?

In support of this inquiry seventy thousand students in forty-two states in this country learned to read using i.t.a. during the past school year.[5]

This paper will present information concerning the description and development of i.t.a., as well as results of some of the major studies conducted in this medium. Materials presented are those considered as having made a contribution to the study of the value of i.t.a.

The intent of the research is to learn whether or not evidence supports the claim that i.t.a. taught children progress more rapidly than children taught with traditional print.

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[3]Lehigh-Bethlehem Evaluation - Demonstration Project on the Use of i.t.a., The Initial Teaching Alphabet in Reading Instruction. A Comprehensive Final Report. (February, 1967), p. 5.

[4]The Story of i/t/a, advertising materials, (New York: i/t/a Publications, Inc., 1963), p. 7.

[5]William Gillooly, "The Promise of i.t.a. Is a Delusion: With Discussion," Phi Delta Kappan, XXXXVII (June, 1966), p. 545.

Background materials were obtained from: (1) current magazine
articles; (2) books published by Pitman Ltd. of London and the Initial
Teaching Alphabet Publications of New York; and (3) pamphlets and bul-
letins from the Initial Teaching Alphabet Foundation at Hofstra University
in New York.

CHAPTER I

IRREGULARITIES IN TRADITIONAL ORTHOGRAPHY (t.o.)

Pei in a light vein describes the teacher's concern with our

inconsistent English language thusly:

"The child you teach will want to know
            The why of sow and sew and foe
Said and maid don't rhyme you'll say
            Then how explain say and weigh
And flood and food, how can it be
            That sounds are not like what you see."[6]

By means of i.t.a. Pitman hoped to delay the beginning reader's

encounter with such irregularly formed words of traditional print until

after the child had developed confidence in his reading ability.

Francis Keppel, former U. S. Commissioner of Education, supports

Pitman's belief that English words which have little relationship between

written symbol and sound cause reading difficulty. When speaking of

Murphy's study concerning growth in perception of word elements he said:

"One of these studies in the long history of reading research demonstrates

conclusively that the nature of the relationship between the spelling of

a word and the sound of a word constitutes the major difficulty in learn-

ing to read and spell."[7]

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[6]M. Pei, The Story of English, (Philadelphia: J. B. Lippincott Company, 1953), p. 201.

[7]The Initial Teaching Foundation, The Initial Teaching Alphabet and the World of English, Proceedings of the Second International i.t.a. Conference, ed. by Albert Mazurkiewicz (1966), p. IX.

Why do these irregularities exist in the English language? A brief glimpse into its history reveals that it is, indeed, a polygot language. It began with a Latin Alphabet which was then applied to a Teutonic Language. These already unstable pronunciations were later infused with equal parts of Anglo-Saxon and Norman influences on both the spoken and written language. Over a period of time, the English language evolved as partly phonetic and partly traditional.

Irregularities in the English language fall into three general categories.

First, there are inconsistencies in the visual pattern of the letters. Our Roman Alphabet combines the upper-case Trajan and the lower-case Caroline letters and is, in reality, two alphabets. Children coping with books in conventional print must learn both. Contrary to popular belief, the beginning reader must learn far more than twenty-six letters.

Second, there are irregularities in the visual pattern of letters within a single word printed in English. The child learning to read must learn not only the word printed in lower-case or capitals, but he must recognize a combination of the two. For example, the word "dog" may also be written as "Dog" and "DOG." This problem is further complicated by slight differences in the printed style of such letters as "g" and "j." Sometimes, the child is forced to learn as many as five visual variations of a single word.

Third, in conventional print a single sound may be represented by many different letters or combinations of letters in lower-case print alone. If conventional capital letters and script letters are also taken into account, the result is more than 2,000 variations in sound-letter combinations. For example, the sound common to "blue," "two," and "flew" may be written in at least thirty different letter-sound patterns.

CHAPTER II

THE INITIAL TEACHING ALPHABET (i.t.a.)

Historic Origin and Development

Nila Banton Smith points out that as early as the Seventeenth Century educators were discussing various methods of circumventing the inconsistencies of the English language during beginning reading instruction.[8]

Some of the early experiments at teaching reading through changes in the alphabet are related by Harrison.[9] He notes that efforts culminating in i.t.a. began more than a century ago. In England, about 1843, Sir Issac Pitman, designer of Pitman's Shorthand and grandfather of Sir James, collaborated with Alexander John Ellis to produce a new phonetic alphabet for the English language. Pitman's brother, Benn, after experiencing success in teaching this alphabet in England, immigrated to America where the new system, known as "Phonotypy," was introduced into 153 public and 10 private schools. A Massachusetts State Legislative Committee, examining the results of this work, declared that the children read in a style rarely equalled by adults and never by children of that age. Use of Pitman's First Phonetic Reader then spread to Massachusetts, New York,

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[8]Nila Banton Smith, Reading Instruction for Today's Child, (New York: Prentice-Hall, Inc., 1963), p. 78.

[9]Maurice Harrison, The Story of the Initial Teaching Alphabet, (New York, New York: Initial Teaching Alphabet Publications, Inc., 1963), p. 21.

Illinois, Missouri, and elsewhere.

Such experiments continued intermittently for half a decade. According to Harrison, a U. S. Bureau of Education report in 1893 carried the statement that from eighteen to twenty-four months could be saved in learning to read when a phonetic alphabet was used.[10]

Downing reports that in 1914 Miss McCullum, an infant's teacher in Scotland, used a simple, systematic alphabet.[11] After the use of Miss McCullum's phonetic alphabet for one year, an observer reported that the children could read any matter presented to them in this print and could write the same symbols from dictation.

Between 1915 and 1924, according to Downing, "Nue Spelling" was used in some British Schools.[12] This alphabet resembled the traditional English alphabet more closely than did those of Issac Pitman and Miss McCullum. There was general agreement among the schools using the "Nue Spelling" system that the process of learning to read was greatly accelerated.

The above-mentioned alphabets, though designed primarily as an aid in reading, were aimed at eventual spelling reform. Economic conditions, together with a shortage of paper and inadequate teaching materials, brought an end to these experiments. Although those studies utilized no control groups with which to compare achievement, they laid the foundation upon which Sir James Pitman would later create the Initial Teaching Alphabet.

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[10]Ibid., p. 51.

[11]Downing, op. cit., p. 14.

[12]Ibid., p. 15.

Pitman realized that in a stable, highly civilized society all children must eventually read the print in use by their elders. With the failure of the spelling reform movements in mind, Sir James set out to design a special alphabet for use by the beginning reader only. The Initial Teaching Alphabet is not a spelling reform or a system of reading. Rather, it is a special tool designed to prevent failure in the initial stages of reading and to develop the security which the child needs as he approaches the more difficult aspects of our alphabetic symbolization with confidence and success.

The problem of i.t.a. printed books was not an easy one for Pitman to solve. As a member of the House of Lords and a wealthy man in his own right, he removed all restraints of copyright from i.t.a. and contributed money for the publication of the first books.[13] He reasoned that the risk of financial loss would be lifted from the publishers and that as a result i.t.a. would then gain wide acceptance. In line with his theory that very little should be changed, Pitman had in mind that publishers would simply transpose existing books into the i.t.a. medium.

In its infant stage Pitman's alphabet was denoted as the Augmented Roman Alphabet, or A. R.[14] In order to better indicate the true purpose of the alphabet, the name was changed in 1963. The use of the upper-case letters, I. T. A., was first proposed, but since England already had an I. T. A. in the form of the Independent Television Authority, the proponents decided instead to use the lower-case letters, i.t.a. Although the alphabet remains the same, various other ways of writing the name have

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[13]Mazurkiewicz and Others, op. cit., p. 340.

[14]John Downing, "Teaching Reading with i.t.a. in Britain," Phi Delta Kappan, XXXXV (April, 1964), p. 323.

arisen. The Initial Teaching Alphabet Publications of New York utilizes vertical slash marks between the letters: i|t|a. Some authors use a similar style but with slanting slash marks: i/t/a. The upper-case version, I.T.A., sometimes appears in the titles of articles in American magazines. To further add to the confusion, Smith refers to I.T.M., or Initial Teaching Medium.[15]

General Description

Basically, Pitman's i.t.a., as introduced in 1954, consists of 43 symbols, each representing a major sound in the English spoken language. i.t.a. does not completely differ in appearance from traditional orthography. It embodies twenty-four traditional letters, excluding only "q" and "x." Of the nineteen augmented symbols, fourteen are "digraphs," or pairs of letters joined typographically to form single symbols. The remaining five symbols, representing other sounds, closely resemble cursive letters.

This resemblance to traditional orthography, or t.o., is not accidental. A deliberate attempt has been made to ease the transition from i.t.a. to t.o., a transition which all children must make eventually. In evolving the i.t.a. symbols from the original designs of his grandfather, Sir James gave priority to symbol formations which would be within the young child's writing ability. The final design was achieved through the assistance of Fellowes and Schenck of the Monotype Corporation Limited of London.[16]

Table I of the Appendix to this paper is a list of the i.t.a.

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[15]Smith, op. cit., p. 80.

[16]Downing, The Initial Teaching Alphabet, (New York: The Macmillian Company, 1966), p. 16.

symbols, together with words illustrating the use of these symbols. Examination of this table will indicate the similarity to traditional orthography. It will be noted that in both i.t.a. and t.o. the top coastlines are almost identical. Any literate adult seeing i.t.a. print for the first time will be able to read it, though he may be forced to read at a slightly slower rate.

Table I contains 44 symbols, as contrasted with the 43-symbol British i.t.a. alphabet. The addition of one extra character was deemed necessary in America in order to represent a sound of "r" not contained in the British spoken language.[17]

i.t.a. is not strictly a phonetic alphabet. A very few inconsistencies have been deliberately retained in order to maintain a visual similarity to t.o. and to facilitate later transition. With respect to correspondence of sound to symbol, i.t.a. is more than 91% phonetic.[18]

Fundamental Differences from t.o.

A. J. Harris defines reading as "a meaningful interpretation of verbal symbols . . . In its beginning stages, reading means learning that queer-looking marks represent speech."[19] Pitman devised his alphabet specifically so that this "decoding" process would not be as irregular as in traditional orthography.

The fact that each i.t.a. symbol has a "sound name" rather than a completely unrelated name, as do many of our traditional letters, adds to

[17]Interview with Laris Stalker, Second Grade Teacher, Eastern Illinois University Laboratory School, who taught remedial i.t.a. group in 1965-66.

[18]Mazurkiewicz and Others, op. cit., p. 23.

[19]A. J. Harris, How to Increase Reading Ability, (New York: David McKay, Inc., 1961), p. 8.

its simplicity. The child first encountering an i.t.a. word which he is unable to pronounce, merely spells the word. The spelling automatically produces each sound. Thus, i.t.a. spelling is nothing more than saying the word in slow motion. An acceleration of the spelling then produces the correct pronunciation of the word in question. On the other hand, the t.o. child can use this procedure only if the visual symbol "says" the sound.

For further simplification Pitman streamlined his alphabet by designing the upper-case letters as slightly larger versions of the lower-case ones. Since i.t.a. employs one form for both cases, the child actually learns fewer symbols than if he were learning both versions of the traditional alphabet.

i.t.a. has no whole word variations. A child who can identify the word "baby" can recognize it whether it be in upper case, lower case, or a combination of the two, since i.t.a. letters retain the same appearance at all times. This is especially helpful when the "look-say" approach to reading is used.

Examination of Table II of the Appendix to this paper, reprinted from the 1963 International Reading Association Yearbook, reveals yet a further difference between i.t.a. and t.o. The symbol representation of a sound remains constant in i.t.a. Thus, the sound common to any one of the thirty visual variations of the sound contained in words such as "zoo," "shoe," and "blew" is reduced to a single symbol in i.t.a. This reduction eliminates the trial and error process which the t.o. student uses when applying phonetic word attack skills.

Huber, of the Bethlehem-Lehigh, Pennsylvania, i.t.a. Project,
states that in her experience such common classroom errors as reversals
and substitutions rarely exist when reading with i.t.a.[20]

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[20]Mazurkiewicz and Others, op. cit., p. 26.

CHAPTER III

DIFFERING APPROACHES TO i.t.a. INSTRUCTION

Use of Existing t.o. Basal Readers

In accordance with Pitman's belief that very little change in the school framework should be necessary in order to incorporate i.t.a., existing basal readers are often utilized. These t.o. basal readers are simply re-written in i.t.a. print for use in i.t.a. classrooms. No changes are made in the stories or pictures. Teachers using this approach apply regular classroom methods and procedures.

Transition from re-written i.t.a. books to the next reading book, which is written in traditional print, is expected to occur during the child's second year of school.[21] As will be noted from examination of Table IV of the Appendix, transition time varies. This variation results from individual differences in children.

Bennett, who participated as head teacher in the Oldham, England, i.t.a. Research Project, reports that children who are ready for transition make the change from i.t.a. print to traditional print rapidly and automatically.[22] She attributes automatic transition to the fact that i.t.a. children are exposed to t.o. library books from the first day of school. Many of the library books include i.t.a. pages which are hinged directly over the regular print.

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[21] John Downing, "The i.t.a. Experiment," The Reading Teacher, (November, 1964), p. 108.

[22] Mazurkiewicz and Others, op. cit., p. 110.

Use of Specially Designed i.t.a. Basal Readers

After visiting English schools which used the Janet and John Series re-written in i.t.a. print, Mazurkiewicz concluded that the children were not receiving total benefit from the new medium.[23] He reasoned that if i.t.a. released a child to read any word contained in his speaking vocabulary, the child should be permitted to use the new skill to the utmost. Assisted by Harold Tanyzer of Hofstra University, Mazurkiewicz published a specially designed i.t.a. reading series, The Early-to-Read Series. This series contains several times the vocabulary load of the re-written t.o. basal readers.

Mazurkiewicz's statement at the Second Annual i.t.a. Conference describes this series: "In content and organization the new i.t.a. reader has broken with the traditional reader. There is no Dick and Jane in every story . . . Instead, each i.t.a. reader is a collection of unrelated stories about . . . piracy, space travel, baseball, a cattle round-up, deep sea diving and children's problems with parents . . . These stories have something happening. They have plot, suspense, humor and even pathos . . . The point: the reader's imagination should be captured from the outset. His natural interest in rhythm . . . is capitalized on by stories in rhyme, like Dinosaur Ben, Moon Mouse, etc."[24]

Transition in The Early-to-Read Series is expected to occur near the end of first grade. The final stories of the last book of the series are written in traditional print with an accompanying i.t.a. - t.o. dictionary to aid transition. The child in the process of transition is encouraged to read many library books printed in both alphabets.

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[23]Ibid., p. 326.

[24]Ibid., p. 327.

CHAPTER IV

READING: EXPERIMENTAL STUDIES AND RESULTS

British Pilot Study

The Reading Research Unit of the University of London began its research into i.t.a. in 1961, under the direction of a research psychologist, John Downing. This project was made possible by grants from the Educational Records Bureau and later from the Ford Foundation.[25]

Twenty schools, with a total of 413 first grade children, were selected to teach reading using the i.t.a. medium. Of this number, 135 were in Oldham County, England. These 413 i.t.a. taught children were compared with 687 children in a t.o. taught control group for the purpose of answering three questions:

(1) Is t.o. the basic cause of difficulty in beginning reading?

(2) Can i.t.a. taught children transfer their knowledge to t.o.?

(3) Is the final achievement worth the additional expense?

Jones describes efforts to achieve uniformity in the two test populations.[26] Both experimental and control groups were matched in those school variables which could be measured easily. These variables included size, urban-rural location, type of organization, pupil-teacher ratio, minimum age of entry, socio-economic level and the facilities of the school building.

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[25]Downing, The Initial Teaching Alphabet, (New York: The Macmillian Company, 1966), p. 45.

[26]Mazurkiewicz and Others, op. cit., p. 66.

The children were matched in such variables as age, sex ratio, social class as defined by the father's occupation, intelligence and vocabulary.

With the exception of specialized training for the i.t.a. teachers, an attempt was made to give equal attention to pupils and teachers in both groups. However, a shortage of research staff rendered this impossible. Some of the experimental groups received large numbers of visitors. A few were even featured in newspaper articles and on television programs.[27]

The same basal reader, Janet and John Series, was used in both groups. The only difference was the change to i.t.a. print for the experimental group. It was hypothesized that if the achievement of the two groups differed widely, the cause could be attributed to differences in the two alphabets.

According to Downing the progress of the two groups was very different.[28] By the end of the first year the average i.t.a. child was at Primer Two level, while the average t.o. child was still in Primer One. By the middle of the second year, the i.t.a. child had moved to Primer Four, and the t.o. child was then reading in Primer Two. By the completion of the study in 1963, the average i.t.a. pupil was beyond Primer Five, or the last half of second grade, but the average t.o. pupil had not advanced beyond Primer Three.

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[27]Ibid., p. 68.

[28]Downing, "The i.t.a. Experiment," The Reading Teacher, (November, 1964), p. 108.

The Neale Analysis of Reading Ability Test (Form C) was given to
a selected sub-sample of the children in 1963. 190 t.o. children took
the test as compared to 146 experimental children for whom the test was
converted to i.t.a. The results of this test show the experimental group
to be well ahead of the control group in accuracy, comprehension and rate.[29]
In March, 1963, the same test (Form A) was given to the same children.
On that occasion the tests for both groups were in traditional print.
The average i.t.a. pupil scored 23 for accuracy and 8 for comprehension
as compared with 9 and 4, respectively, for the t.o. children. The i.t.a.
child read an average of 34 t.o. words per minute as compared with 19
words per minute for the average t.o. child. On the basis of these
results, researchers felt they had received a positive answer to their
first two questions.

Second British Study

On the basis of conclusions reached at the end of the pilot study,
a second i.t.a. study was commenced in England in 1963. This project,
like the earlier one, was designed to evaluate the progress of both
experimental and control groups. As indicated by Jones, this second
research project, which is to extend through 1974, has been designed
to control incidental variables more rigorously than the earlier pro-
ject.[30] Each participating school was given one experimental and one
control class running parallel to each other. As the project was
originally conceived, the two teachers were to alternate between the

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[29]John Downing, "Experiments with Pitman's Initial Teaching Alphabet in
British Schools," Reading As An Intellectual Activity, Third Yearbook
of the International Reading Association (1963), p. 119.

[30] Mazurkiewicz and Others, op. cit., p. 66.

classes, with one teacher assuming the responsibility for teaching all reading in both classes. Although the print was different, other methods and the time allocations were to be identical. Neither teacher was to be absent from either classroom for a period exceeding one day. According to Jones, this 50/50 pattern of sharing teacher responsibilities broke down during the first year, and as of March, 1965, had not been consistently re-established.[31] Teacher dissatisfaction appeared to be the reason. The teachers' response to a questionnaire revealed that whenever the 50/50 pattern was not adhered to, the reading teacher spent more time with the experimental group.[32]

In the second study, as in the first, the experimental groups progressed more rapidly than the control groups. By the end of the first year the average i.t.a. child was reading in Primer Two as compared to Primer One for the t.o. child. By mid-second grade the scores were not so widespread as had been the case in the pilot project. The average i.t.a. child was reading in Primer Three as compared to Primer Four at the same stage in the First Project. The average t.o. child was again at Primer Two.[33]

Schonell's Graded Word Reading Test was administered to both groups, each in its own medium, in June, 1964. Both the Schonell's Graded Word Reading Test and the Neale Analysis of Reading Ability were administered in the two mediums during the middle of the following year. During the same month Form A of the Neale Test, written in traditional print, was administered to both groups.

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[31] Ibid., p. 69.

[32] Ibid.

[33] Ibid., p. 74.

The results of the above tests revealed a significant difference between the experimental and control groups, so long as the tests were given in both mediums. This difference was in favor of the i.t.a. group. There was no significant difference between the groups, however, when all tests were printed in t.o.[34]

At the time Form A of the Neale Test was administered, only 17% of the i.t.a. children had made the transition to traditional print as contrasted with 40% at a comparable point in the first project. Jones further points out that the results obtained in the second and original experiments are by no means identical: "We have found that in general the differences between the experimental and control groups of the second experiment are smaller than those in the original experiment. The scores of the experimental group of the second experiment tend to be lower than the scores of the original experiment. The same is true, though to a smaller extent, between the two control groups."[35]

The second study began in 1963 with 200 schools. By 1965 i.t.a. had extended outside the project to include more than 1,000 schools in the United Kingdom.[36]

Bethlehem-Lehigh, Pennsylvania, Project

In 1963 the first American i.t.a. experiment, the Bethlehem-Lehigh Project, was launched in Bethlehem, Pennsylvania, under the direction of Dr. Albert Mazurkiewicz of Lehigh University. The Bethlehem-Lehigh Project was first of all a demonstration and, secondly, an evaluation of the effectiveness of i.t.a.

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[34]Ibid., p. 75.

[35]Ibid., p. 77.

[36]Downing, The Initial Teaching Alphabet, (New York: The Macmillian Company, 1966), p. XVI.

The experimental group utilized Mazurkiewicz's Easy-to-Read Series while the control group used the t.o. basal approach. Both emphasized writing and wide supplemental reading.

In Bethlehem all children in the first grade during the 1963-64 year were made a part of the research project. One-third of the group was taught to read with i.t.a.

The final comprehensive report of the Project indicates that in May, 1964, both the experimental and control groups were given the California Reading Test (Form W) in traditional print. 196 pairs of children were selected, identical in sex, chronological age, socio-economic status, and matched within two points of I.Q. Although the i.t.a. children had been working in t.o. only one week at the time the California Reading Test was administered, 5.57% of the i.t.a. children achieved a 3.5 grade level, or better, as compared to 2.37% of the t.o. population. The results further revealed that the i.t.a. group was superior to the t.o. group as to vocabulary but not with respect to comprehension. The following year, both groups maintained their rela-tive positons with respect to both vocabulary and comprehension when again tested with the California Reading Test. Near the end of third grade, April, 1966, when Form X of the same test was administered, no significant difference between the two groups was found.[37]

The 1964-65 Bethlehem-Lehigh First Grade classes were consistently tested with the Stanford Achievement Test. When both mediums were used in testing at the end of the first year, the i.t.a. group was superior

[37]Lehigh-Bethlehem Evaluation - Demonstration Project on the Use of i.t.a., op. cit., p. 23.

with respect to word reading and word study. No difference appeared between the two groups in paragraph meaning. In May, 1966, the test was administered to both groups in traditional print. At that time no significant differences were found between the groups.[38]

According to Stewart a few i.t.a. taught children were retained each year. Nevertheless, the entire first grade population in the Bethlehem Schools shifted to i.t.a. in the fall of 1965.[39]

Other American Studies

Other recent American studies substantiate the latest Bethlehem results. Mazurkiewicz, in his one-year study for the U. S. Office of Education, also found that the i.t.a. children were superior to t.o. children so long as they were reading in i.t.a.[40] However, when both groups were tested in t.o. on Form W of the Stanford Achievement Test, the i.t.a. children were superior in word recognition only. The difference was not significant on subtests of paragraph meaning and word-study.

McCracken's Washington State Study involved thirty-four i.t.a. children using The Early-to-Read Series and twenty-six t.o. children using the Ginn Series. Results are similar to those found by Mazurkiewicz. In the Washington State Study the Gray Oral Reading Test and the Standard Reading Inventories were administered to each group in its own medium, in March, 1965. Two months later, the Stanford Achievement Tests were

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[38]Ibid., pp. 51, 54.

[39]Mazurkiewicz and Others, op. cit., p. 122.

[40]Albert Mazurkiewicz, "i.t.a. and Reading Achievement When Methodology is Controlled," The Reading Teacher, (May, 1966), p. 610.

administered in t.o. to both groups. From these tests, McCracken found that the i.t.a. children achieved higher scores than the control group, when each group read in its own medium. The i.t.a. children were also superior in word recognition in t.o. However, there was no significant difference between the two groups in the remaining five subtests.[41]

An Oakland County, Michigan, Research Project was conducted in 1964-65 under the auspices of the U. S. Office of Education. This experiment, designed to compare three different approaches to reading, was a one year study involving 36 classes of heterogeneously grouped children. One-third were taught to read using i.t.a. One-third used a language arts approach. The remaining one-third used a basal reader approach. Harry Hahn, who directed the project, found evidence "that i.t.a. children employed a broader range of word attack skills, which served them well when attacking one word at a time." He further states that although final evaluation could not be given, there was some indication that the differences in achievement between the i.t.a. group and the two other groups of his study were not substantial.[42]

[41]Mazurkiewicz and Others, op. cit., p. 79.

[42]Harry Hahn, "Three Approaches to Beginning Reading Instruction," The Reading Teacher, (May, 1966), p. 594.

CHAPTER V

SPELLING: EXPERIMENTAL STUDIES AND RESULTS

Spelling is not emphasized in the first grade i.t.a. classroom.
Beginning in second grade, however, spelling programs are structured on
both a group and an individual basis. As a group, the class investi-
gates spelling patterns and studies frequently-used words. Particular
words which prove difficult for an individual student comprise his
individualized spelling list. Flashcards and picture dictionaries,
containing both i.t.a. and t.o. words, provide added assistance for
the children.

Spelling of i.t.a. words is not purely phonetic. A very few
irregularities do exist. For example, "c" and "k" both represent the
same sound. In such cases the teacher is urged to encourage the spelling
which most nearly resembles the t.o. word.

The ability of the student to correctly spell i.t.a. words is
not the prime source of concern to parents and educators. Instead, they
are concerned that i.t.a. may prevent the child from becoming a good
conventional speller. Downing, in commenting on this matter, stated
that, in his opinion, it would be difficult for spelling to be any
worse than it already is.[43] Research projects confirmed his further
opinion that the i.t.a. child could readily transfer to t.o. spelling.

In 1965, at the end of the first year of the Washington State

[43]Downing, The Initial Teaching Alphabet, (New York: The Macmillian
    Company, 1966), p. 34.

Study, McCracken administered the Stanford Achievement Test in conventional print to both the experimental and control groups. He concluded from the results of the spelling sub-test that, although the control group had a slight edge, the difference was not great enough to indicate that i.t.a. was in any way detrimental to later spelling in t.o.[44] Since only a small percentage of the experimental group had achieved formal transition at the time of testing, McCracken further concluded that i.t.a. taught children and t.o. taught children could be expected to spell equally well in t.o.

Mazurkiewicz, in his one-year study for the U. S. Office of Education, reached conclusions similar to those of McCracken.[45]

In mid-1964, Downing tested the 1961 British Project population by administering the Schonell Graded Word Spelling Test in traditional print. The children were then in their third year of school. More than half had achieved transition. The test results indicated that the i.t.a. children spelled an average of 28.7 words correctly, as compared to 24.1 for the t.o. children.[46]

Another report by Mazurkiewicz, in connection with the Bethlehem Project, compares spelling results at both the end of the first year and the end of the second year. All tests were given in t.o. This report, like Downing's, finds that the i.t.a. population excels the t.o. population after more time has elapsed following transition.[47] Following is

[44]Mazurkiewicz and Others, op. cit., p. 88.

[45]Mazurkiewicz, "i.t.a. and Reading Achievement When Methodology is Controlled," The Reading Teacher, (May, 1966), p. 610.

[46]Downing, "The i.t.a. Experiment," The Reading Teacher, (November, 1964), p. 108.

[47]Albert Mazurkiewicz and P. A. Lamana, "Spelling Achievement Following i.t.a. Instruction," Elementary English, XXXXIII (Nov., 1966), p. 759.

the data from this report, showing matched sample results:

	i.t.a. N=196		t.o. N=196	
	M	S.D.	M	S.D.
May, 1964	9.88	4.87	12.03	5.76
May, 1965	17.85	7.41	13.85	8.04

Results of the Stanford Spelling Test, administered in April, 1966, also yielded a significant difference in favor of the i.t.a. group.[48] Writing samples, collected in 1966, revealed that the i.t.a. children were able to transfer their superior spelling ability to creative writing.[49]

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[48]Lehigh-Bethlehem Evaluation - Demonstration Project on the Use of i.t.a., op. cit., p. 34.

[49]Ibid.

CHAPTER VI

WRITING: EXPERIMENTAL STUDIES AND RESULTS

The time for introduction of i.t.a. writing varies according to
the reading series used. The re-written t.o. basal series delays for-
mal i.t.a. writing instruction until after the child has received
extensive training in sounds and is beginning to read. The specially
designed i.t.a. basal reader includes i.t.a. writing from the outset
and incorporates it as a part of the reading program. Under either
approach, the child continues i.t.a. writing for a short time after
he completes reading transition to t.o.

Mazurkiewicz, at the end of the second year of the Bethlehem
Project, compared writing samples of 144 matched pairs of experimental
and control children after both groups had made the transition to t.o.[50]
His comparisons show the following:

	i.t.a.		t.o.	
	M.	S.D.	M.	S.D.
Punctuation	73.4	28.0	80.8	28.6
Capitalization	74.0	25.6	84.7	21.9
No. of Running Words	67.1	38.8	48.9	31.1
No. of Polysyllabic Words	9.9	7.3	5.8	5.2

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[50]Albert Mazurkiewicz and P. A. Lamana, "Spelling Achievement Following
i.t.a. Instruction," Elementary English, XXXXIII (Nov., 1966), p. 759.

As will be noted from the foregoing figures, the t.o. population excelled in capitalization. They were only slightly more superior in punctuation than the i.t.a. taught group. The i.t.a. group, however, utilized a greater number of words per sentence and polysyllabic words. In preparation for this test both groups of children were motivated through teacher-led discussion of pictures. No child was given assistance in spelling, but all were permitted to use flashcards and picture dictionaries. Matched sample writing results obtained from this same group in May, 1966, indicate that the i.t.a. students were continuing to surpass the t.o. children in the use of larger words and the number of words per sentence.[51]

In discussing the study which he conducted for the U. S. Office of Education, Hahn suggests that the greatest advantage of i.t.a. is its effect on teachers.[52] He found that many of the teachers who might have been hesitant about their ability to guide children in extensive writing practices using traditional print were not so reluctant with i.t.a.

Huber, a classroom teacher in the Bethlehem-Lehigh Project, supports this conclusion: "I was completely unprepared for the flood of writing which i.t.a. produces. Some children have no difficulty getting started. Others write meaningless symbols at the start . . . In writing as in anything else, there are those who excel and those who do not care to create. However, I have not had one child who did not write anything. Even the lowest pupil has written a single-sentence story.[53]

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[51]Lehigh-Bethlehem Evaluation - Demonstration Project on the Use of i.t.a., op. cit., p. 34.

[52]Hahn, op. cit., p. 594.

[53]Mazurkiewicz and Others, op. cit., p. 126.

CHAPTER VII

SUMMARY

Now, for the first time in history, we are living in a basically affluent society. Nevertheless, many people remain either totally, or functionally, illiterate. In an effort to rectify this situation, Pitman's i.t.a. was introduced. Its objective is to prevent discouragement which often arises when the beginning reader encounters the irregularities of traditional orthography.

Many people express hesitancy about such an innovation. They fear that i.t.a. taught children cannot successfully transfer to the reading, spelling, and writing of the traditional alphabet. Test results of the first studies have helped overcome this fear. These results show that children easily transfer to traditional print and that i.t.a. taught children do at least as well as the t.o. taught children on traditionally printed standardized tests.

One may very well question the very striking results of the British Pilot Study, which apparently convinced many people that i.t.a. was the panacea for beginning reading problems. The second British Study yielded less significant results than the first. One may suspect that, either the first experiment failed to equally motivate the experimental and control groups, or that the results of the second experiment reflected the teachers' dislike of the 50/50 pattern of classroom organization. In either case, the results would not be completely accurate. On the other

hand, the British projects will provide a longitudinal study which the other projects will lack.

In comparing the results of the British studies with the results of studies in the United States, we must recognize that British children traditionally begin school a year younger than do American children. Because of this age variable, any comparison is not completely meaningful.

In short, test results to this time point to three important conclusions: (1) i.t.a. children easily transfer to traditional orthography; (2) i.t.a. does not hamper a child's progress in school, for he does equally as well as the t.o. taught child; and (3) there are indications that the passage of time may favor the i.t.a. taught child, at least as far as spelling is concerned.

Remaining to be answered, however, is whether or not the ultimate achievement of the i.t.a. taught child is significant enough to warrant the added expense of specially printed books and materials.

Studies also indicate that the average child whose introduction to reading is delayed will soon do as well as the one who receives intensive reading training in kindergarten or first grade. This approach may hold as much promise for a solution to the reading problem as does a change in the alphabet.

Teacher effectiveness must be taken into account in any comparison between t.o. and i.t.a. The i.t.a. teacher, in order to avoid discouraging the child, is instructed not to pencil every error on the child's paper. Only the major ones are to be marked. If at all possible, the teacher is urged to provide a corrected version of the child's own writing for him to copy. If the t.o. teacher also remembered to apply this technique, would not the t.o. children, too, be more enthusiastic

workers who would write voluminously? One of the recently conducted
U. S. Office of Education Projects concludes that emphasis on writing
practice results in more writing and better spelling in children's com-
positions.[54] One, therefore, must question whether the teacher or the
medium is responsible for the i.t.a. child's good writing results.

The effective classroom teacher in the traditional school con-
stantly takes into account the individual differences in the students.
Apparently, it is very little different in the case of the good i.t.a.
teacher. Broad claims have been made concerning the time of transition
from i.t.a. to t.o. However, an examination of Table IV of the Appendix
to this paper reveals that in the 1961 Oldham, England, Project some
children had not completed the transition to t.o. by the end of the
third year of what had been originally designed as a two-year plan.
Others had made the conversion before the end of the first grade. Those
teachers have undoubtedly found that, notwithstanding a set time schedule,
each child must proceed at his own rate in order to advance successfully.

Elsewhere in this paper, references have been made to statements
by Stewart to the effect that even in i.t.a. classrooms some children
were retained in first grade. Obviously, i.t.a. cannot overcome mental
and emotional difficulties. More research is necessary in order to
determine if i.t.a. can perhaps benefit one group of children more than
another.

Many teachers using i.t.a. report that the most noticeable changes
occur in the overall behavior pattern in their classrooms. Their children

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[54]Helen Murphy, "Growth in Perception of Word Elements in Three Types of
Beginning Reading Instruction," The Reading Teacher, (May, 1966), p. 600.

are happy and busy, and behavior problems have ceased to exist. However, experience shows that the t.o. teacher who maintains a classroom free of tension and fear and who insures that each child meets with success, likewise, has few behavior problems. Again, the query is whether the teacher or the medium is responsible for the behaviorial change.

Pitman's Alphabet is now being tested in work with mentally retarded and under-privileged children, illiterate adults, remedial reading cases, and in speech therapy. It may well be that i.t.a. will prove to be most beneficial in one of these areas.

With the limited test results which are now available, it is difficult to make definite statements concerning the value of the Initial Teaching Alphabet in beginning reading instruction. The most recent data available from the i.t.a. Foundation, which is the clearinghouse for all i.t.a. information in America, is based on the school year 1964-65. The author recently corresponded with six major cities using i.t.a. Only the Bethlehem schools responded with factual study results, including their Comprehensive Final Report which covers the school year 1965-66.

This author believes that educators should await further experimental results before encouraging widespread use of i.t.a. It is the author's opinion that such final results may reveal no really significant advantage for the i.t.a. taught child. Well-trained teachers, not a change in medium, may be the important factor in the improvement of beginning reading instruction.

APPENDIX

TABLE I

Pitman's Initial Teaching Alphabet, with its 44 symbols
and words illustrating the sounds these symbols represent.

æ	b	c	d	ee
face	bed	cat	dog	key
f	g	h	ie	j	k
feet	leg	hat	fly	jug	key
l	m	n	œ	p	r
letter	man	nest	over	pen	girl
r	s	t	ue	v	w
red	spoon	tree	use	voice	window
y	z	ʒ	wh	ch
yes	zebra	daisy	when	chair
th	th	ſh	ʒ	ŋ
three	the	shop	television	ring
a	au	a	e	i	o
father	ball	cap	egg	milk	box
u	ω	ω	ou	oi
up	book	spoon	out	oil

Initial Teaching Alphabet Publications, Inc.

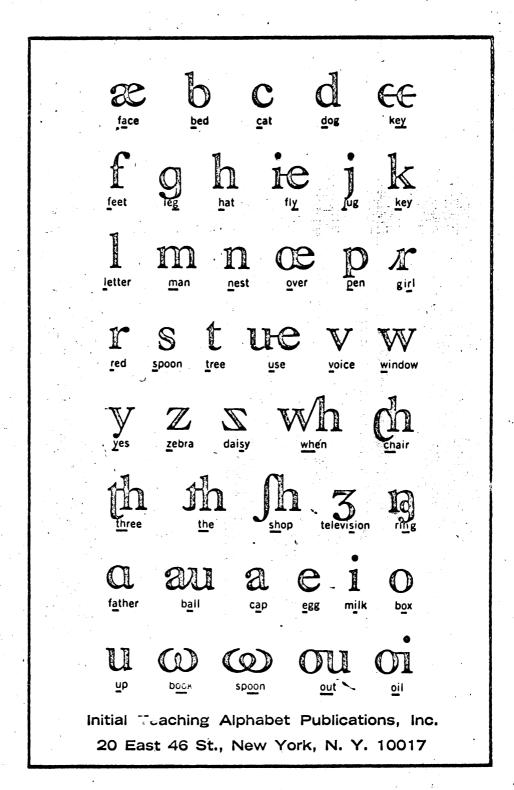20 East 46 St., New York, N. Y. 10017

TABLE 2

ILLUSTRATIVE REDUCTION OF NUMEROUS t.o.
SOUND SYMBOLS TO SINGLE i.t.a. EQUIVALENT

	Traditional Orthography		*Pitman's* *Initial Teaching Alphabet*	
1.	u	ruby (and in RUBY)	1. ꞷ	rꞷby
2.	u..e	rule		rꞷl
3.	U..E	RULE		rꞷl
4.	o	do (and in DO)		dꞷ
5.	o..e	move		mꞷv
6.	O..E	MOVE		mꞷv
7.	ui	fruit (and in FRUIT)		frꞷt
8.	ui..e	bruise		brꞷs
9.	UI..E	BRUISE		brꞷs
10.	ou	group (and in GROUP)		grꞷp
11.	ou..e	route		rꞷt
12.	OU..E	ROUTE		rꞷt
13.	ough	through		þrꞷ
14.	OUGH	THROUGH		þrꞷ
15.	oo	moon (and in MOON)		mꞷn
16.	ooe	wooed		wꞷd
17.	OOE	WOOED		wꞷd
18.	oo..e	ooze		ꞷs
19.	OO..E	OOZE		ꞷs
20.	heu	rheumatism		rꞷmatism
21.	HEU	RHEUMATISM		rꞷmatism
22.	ue	flue		flꞷ
23.	UE	FLUE		flꞷ
24.	eu	maneuver		manꞷver
25.	EU	MANEUVER		manꞷver
26.	ew	grew		grꞷ
27.	EW	GREW		grꞷ
28.	oe	canoe		canꞷ
29.	OE	CANOE		canꞷ
30.	wo	two (and in TWO)		tꞷ

TOTAL 30   *TOTAL* 1

TABLE 3

i.t.a. AND t.o. RESULTS AFTER TWO YEARS' AND THREE YEARS' USE
IN OLDHAM COUNTY BOROUGH (ENGLAND)[a]

Two Years' End — Sixth Term (1963)

	i.t.a.			t.o.	
Year of School Entry (Numbers)	1961 (135)	1962 (502)	1963 (1313)	1961 (241)	1962 (182)
Nonreaders	-	1.8%	1.1%	0.4%	2.2%
Half way through the reading scheme or beyond	87.5	67.8	72.6	40.2	36.3
Ended reading scheme	65.9	43.8	36.5	5,0	6.6
Transitioned	59.2	42.7	32.7		

Three Years' End — Ninth Term (1964)

	i.t.a.		t.o.	
Year of School Entry (Numbers)	1961 (133)	1962 (544)	1961 (248)	1962 (157)
Nonreaders	-	0.9%	0.4%	-
Half way through the reading sceme or beyond	100.0%	92.4	73.8	73.9
Ended reading scheme	87.9	72.3	31.5	37.6
Transitioned	87.9	71.6		

[a]Age of school entry four years one month to five years normally.

In 1961 and 1962 the same first reading schemes but in different scripts were used by all these children. In 1963 virtually all classes used i.t.a.

TABLE 4
i.t.a. RESULTS BETWEEN 1961-1965
IN OLDHAM COUNTY BOROUGH (ENGLAND)

Entrants	1 Sept. 1961	2 Sept. 1962	3 Sept. 1963	4 Easter 1964	5 Sept. 1964	6 Easter 1965
			FIRST TERM			
Number of children	150	509	1319	243	1291	273
Nonreaders	77.3%	65.4%	51.7%	63.8%	56.9%	65.2%
Completed half the reading scheme	-	-	0.2	2.5	-	1.1
Completed the reading scheme	-	-	-	-	-	0.8
Transitioned to t.o.	-	-	-	-	-	0.4
			SECOND TERM			
Number of children	152	547	1331	255	1279	
Nonreaders	17.1%	20.8%	17.1%	14.9%	19.6%	
Completed half the reading scheme	13.1	12.3	6.9	6.7	5.2	
Completed the reading scheme	0.6	0.2	0.2	1.2	2.7	
Transitioned to t.o.	0.5	0.2	-	1.2	0.7	
			THIRD TERM			
Number of children	150	538	1298	279	1247	
Nonreaders	4.7%	9.8%	7.5%	12.5%	9.5%	
Completed half the reading scheme	33.9	25.7	25.0	23.6	22.1	
Completed the reading scheme	7.3	6.7	4.0	5.7	4.8	
Transitioned to t.o.	5.3	5.2	2.7	3.9	1.5	

TABLE 4

(continued)

Entrants	1 Sept. 1961	2 Sept. 1962	3 Sept. 1963	4 Easter 1964	5 Sept. 1964	6 Easter 1965
			FOURTH TERM			
Number of children	139	542	1288	237		
Nonreaders	2.1%	4.1%	2.5%	3.5%		
Completed half the reading scheme	69.9	39.4	38.6	43.1		
Completed the reading scheme	27.4	14.3	14.0	11.5		
Transitioned to t.o.	24.5	12.5	9.7	10.2		
			FIFTH TERM			
Number of children	139	518	1297			
Nonreaders	1.4%	2.7%	1.1%			
Completed half the reading scheme	84.9	55.2	64.9			
Completed the reading scheme	57.6	28.2	26.4			
Transitioned to t.o.	51.1	22.8	23.2			
			SIXTH TERM			
Number of children	135	502	1313			
Nonreaders	-	1.8%	1.1%			
Completed half the reading scheme	87.5%	67.8	72.6			
Completed the reading scheme	65.9	43.8	36.5			
Transitioned to t.o.	59.2	42.7	32.7			

TABLE 4
(continued)

Entrants	1 Sept. 1961	2 Sept. 1962	3 Sept. 1963	4 Easter 1964	5 Sept. 1964	6 Easter 1965
	SEVENTH TERM					
Number of children	131	512				
Nonreaders	-	1.0%				
Completed half the reading scheme	87.0%	78.6				
Completed the reading scheme	76.3	50.2				
Transitioned to t.o.	76.3	49.4				
	EIGHTH TERM					
Number of children	132	538				
Nonreaders	-	0.6%				
Completed half the reading scheme	95.4%	88.3				
Completed the reading scheme	81.8	64.3				
Transitioned to t.o.	81.8	63.2				
	NINTH TERM					
Number of children	133	544				
Nonreaders	-	0.9%				
Completed half the reading scheme	100.0%	92.4				
Completed the reading scheme	87.9	72.3				
Transitioned to t.o.	87.9	71.6				

[a]Normal age of school entry four years to five years in 1961 and 1962; thereafter four years two months to five years.

GLOSSARY

Basal reader: One of a sequential series of reading textbooks designed for use in a reading program.

Coastlines: As referred to in writing, the outline of printed or written letters.

Hawthorne Effect: Motivation resulting from additional stimulation of a new, often experimental, situation.

Look-say method: A method of reading instruction based on recognition of entire words by sight.

Orthography: The art of writing words with the proper letters according to standard usage.

Phonetic approach: A method of reading instruction which utilizes sounds as a means of recognizing new words.

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