A CRITICAL INVESTIGATION OF THE i.t.a.:

RATIONALE AND RESEARCH FINDINGS

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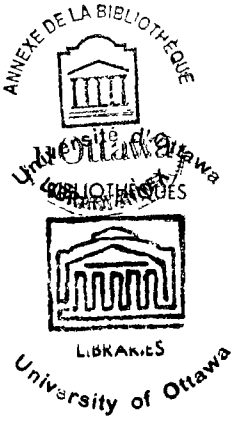

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INTRODUCTION

Reading pervades almost every facet of the elementary school curriculum: young children spend most of their time at school either learning how to read or using reading to facilitate other learning. Consequently, concerns about the most productive means of acquiring reading competence have always occupied the attention of educators and others involved in young children's learning. Many such commentators have identified sociological, psychological and pedagogical factors which frustrate the development of reading competence in significant numbers of young children. However, among English-speaking educators, there exists a considerable body of opinion which contends that it is the irregularity of the English orthography which is the major factor responsible for reading failure.

Those holding such views propose major reforms of English spelling. These reforms are represented by the five proposals listed below:

1. Fry's Diacritical Marking System: a system of marks to aid pronunciation of such letters as long and short vowels, the silent 'e,' etc., in the traditional spelling.

2. Gattegno's Words in Colour and Jones' Colour Story Reading: two systems which seek to indicate letters

and letter clusters by definite colours which represent different phonemes.

3 Wijk's Regularized Inglish: a system of simplifying the traditional spelling by omitting the irregular or confusing letters.

4. Shaw's Non-Romantic Alphabet: one example of the many unsuccessful attempts to provide a new and permanent replacement of the traditional Roman symbols of traditional English spelling.

5. Pitman's Initial Teaching Alphabet or the i.t.a.: a system for beginners, which augments the traditional alphabet with additional letters to remove the perceived irregularities in sound-symbol correspondence.

It is the system described in the fifth proposal above which is the subject of the present study. The need for such a study becomes apparent when one considers that advocates of i.t.a., notably Downing, are currently maintaining that sufficient empirical data has been accumulated to allow for a positing of a psycholinguistic theoretical basis for i.t.a. The present study attempts to evaluate the validity of Pitman's claims about the efficacy of the i.t.a. in beginning reading through the following procedures: (i) by critically investigating Pitman's rationale for i.t.a.; (ii) by examining the empirical data to determine whether there is sufficient support for a

valid theoretical basis for the i.t.a.

Pitman proposes that a greater amount of consistent acoustic information is needed from the English alphabet to make reading easier. His perception of the inadequacies of the traditional orthography of English, and his rationale for the Initial Teaching Alphabet are presented in Chapter I.

Pitman's criticisms of the traditional orthography and his claims for the i.t.a. have been challenged by many experts in reading and linguistics. Chapter II discusses the arguments which have been presented for and against the i.t.a.

The launching of this new augmented alphabet was hailed by its inventor and early advocates as one of the most important events in the history of English education. Pitman was confident that the woes of generations of English-speaking children would be over, and that reading would cease to be regarded as a problem by educators. In order to determine, objectively, whether Pitman's invention would live up to his claims for it, two major longitudinal research experiments were conducted by the Ministry of Education for England and Wales. These have been followed by a flood of other researches, especially in the United Kingdom and the United States of America. Chapter III examines these research findings to determine whether or

not Pitman's claims have been confirmed.

Chapter IV synthesizes the main issues raised in the i.t.a. debate. More especially, it considers whether the available empirical data supports the claims made in favour of the i.t.a.

This chapter concludes with an indication as to the areas in which further research may be desirable.

CHAPTER I

PITMAN'S RATIONALE FOR THE i.t.a.: PRESENTATION AND CRITIQUE

This chapter provides the essential elements of Pitman's rationale for his Initial Teaching Alphabet. Pitman's case is presented here since it is central to the purpose of the present work, which is to enquire into the value of the i.t.a. as an agent facilitating the acquisition of reading skills.

Pitman's explanation for the invention of the Initial Teaching Alphabet is that the inconsistencies of the traditional orthography (t.o.) prevent many young children from learning to read, and make that feat unnecessarily difficult for many others who do manage to learn[1]. He cites the findings of surveys by the Ministry of Education for England and Wales[2], and Morris[3] to support his contention that at least one out of every six school-leavers in England and Wales is a backward reader[4].

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1 James Pitman and John St. John, Alphabets and Reading, London, Pitman, 1969, p. 40.

2 H.M.S.O. Publication, 1957, Standards of Reading, 1948-1956, p. 3.

3 Joyce Morris, "How Far Can Reading Backwardness Be Attributed to School Conditions?" in John Downing (Ed.), The First International Reading Symposium, Oxford, 1964, London, Cassell, 1966, p. 160-182.

4 Pitman and St. John, Alphabets and Reading, Op. cit., p. 8.

There is little doubt in Pitman's mind that the major factor which produces so many reading failures is the illogical and inconsistent orthography of English. For him, the variables of methodology, reading programs, quality of teachers, and learner pathologies are unfortunate scapegoats in the reading debate. He argues that the real problem exists in the misleading connection between the visual symbols and spoken words, and in the fact that "the true alphabetic principle is applied only partially since most English printed words are not spelled as they are pronounced[5]."

According to Pitman, two broad classifications emerge from the maze of inconsistencies in the traditional orthography. In the first place, the same letter, or the same group of two or more letters, represents a variety of phonemes: words look as if they should sound the same, but in fact they do not. He notes that:

> in go, do, so, one, once, women, the single character o implies a false common relationship; in leaf, great, bread, heart, earth, sergeant, and guinea, seven traps are set for the reader of the digraph ea...[6].

In the second main group of inconsistencies the same phoneme is represented by a variety of letters or digraphs: the words look as if they must be different

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5 Ibid., p. 40.

6 Ibid., p. 44.

from each other, but in fact they have the same pronunciation. His examples are:

> I, eye, ice, phial, indict, lie, sign, dye, choir, ...different visual configurations with the same sound[7].

Pitman further contends that the alternative forms for representing letters in the traditional orthography, that is, print, script, upper- and lower-case, cause additional difficulties for the child who is learning to read. He concludes that according to his calculations only 26.5 percent of the commonest English words have a regular phoneme-grapheme correspondence.

In essence, Pitman's thesis is that for the beginning reader meaning is derived after he has decoded the graphic symbols into sounds, most of which he has learned earlier in speech. Therefore, he argues, the easier the process of deriving meaningful sounds from letters and words, the easier and more productive will be the child's first efforts in learning to read. In his conceptualization of the reading process, comprehension follows word recognition.

Although Pitman is very critical of the flaws which he attributes to the traditional orthography, and argues with some enthusiasm in favour of the merits of languages

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7 Ibid., p. 45.

with regular symbol-sound correspondence, he refrains from proposing a permanent reform of the English alphabet. Instead, he advances the merits of his Initial Teaching Alphabet (i.t.a.) as a code which has an almost one-to-one phoneme-grapheme correspondence, while retaining a very close resemblance to the traditional orthography. He proposes the i.t.a. as a modified alphabet which will facilitate easy development of reading fluency, and argues that upon the attainment of this fluency, the reader will be able to transfer to the traditional orthography without difficulty.

Pitman claims that his forty-four i.t.a. letters match the approximately forty English phonemes on an almost one-to-one relationship. Moreover, he contends that since twenty-four of the i.t.a. letters are retained from the traditional orthography, and since the other twenty closely resemble the traditional letters, the i.t.a.-taught reader will be learning via a medium which very closely resembles the script to which he will transfer. He argues that an additional feature which will facilitate easy transfer is the almost identical shapes of the "top coast-line" of i.t.a. and the traditional orthography. That is, in the t.o. and i.t.a. versions of writing, the top half of the letters are almost identical. This is illustrated by the following samples of t.o. and i.t.a.

scripts:

Once upon a time there were only two crabs in a hole.

Wuns upon a tiem thær wer œnly tw crabz in a hœl.

Pitman dismisses any fears about the inconsistencies which develop in i.t.a. spellings because of variations in pronunciations as a result of racial, regional or national accents. He maintains that since the ear has been conditioned to tolerate wide variations and to extract meaning from them all, the reader has no difficulty in coping with inconsistencies between spelling and sound so long as the spelling is close enough to create an acoustic impression of the approximate sound. As examples, he asserts that the London child with a Cockney accent can easily decipher that"wief"and"woif" (wife in the traditional orthography) have identical meanings; or that the beginning reader will have no difficulty in recognizing sœldier, sœlja, sœljer, sœljia, or sœljier as different spellings of the same word (soldier in the traditional orthography)[8].

Pitman considers spelling reforms to be necessary only for beginning readers, and argues against the adoption of a completely new English alphabet on grounds of

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8 Ibid., p. 127.

impracticability and expense. He contends that the only purpose of spelling reform should be to make reading easier for beginners, and states that his proposals for the use of the i.t.a. with beginners are realistic, for they can be instituted without any great expense or disruption to young children and their schools. Finally, he suggests that if the i.t.a. proves to be a successful approach for the teaching of reading, most of the arguments for a permanent reform of English spelling will lose their conviction.

To summarize, according to Pitman, reading failure is caused by an illogical and inconsistent English orthography. He is convinced that it is the irrational spellings, and not other factors, which perplexes the beginning reader, and proposes that the only meaningful solution to the reading problem is to "eliminate from the beginner the avoidable difficulties inherent in what is read[9]." Pitman has chosen to eliminate those avoidable difficulties by means of an augmented initial alphabet, instead of merely avoiding them by retaining the traditional alphabet and postponing their introduction until fluency has been attained with phonemically regular words.

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9 Ibid., p. 39.

There appear to be two major shortcomings in Pitman's rationale. These are all the more significant when one considers that Pitman's background does not include any training in psychology or linguistics, or any experience in teaching young children to read. In the first place, Pitman indicts the traditional orthography on numerous counts, but does not substantiate any of his indictments with empirical or clinical evidence or psychological arguments. For example, he claims, without any proof, that the use of upper- and lower-case print, and script as alternative forms of representing the alphabet, is confusing to the beginner[10]. Furthermore, he contends that the fusion of two or more letters of the traditional orthography to represent a single phoneme frustrate young children's logic and reasoning power. Yet, interestingly, after arguing that letter combinations like sh, ch, ea, oi, in the traditional orthography are confusing to beginning readers, he devises the symbols ʃh, ʧh, æ, ɔi in the i.t.a. to represent the same phonemes respectively. It is highly probable that young readers can recognize ʃh, ʧh, æ, ɔi only because they can see in them letter combinations which they already know from their out-of-school learning experiences.

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10 Ibid., p. 50.

The second obvious weakness in Pitman's thesis is his opportunistic or, at least, inconsistent logic as he compares i.t.a. and the traditional alphabet. On the one hand, he argues that the fluidity in pronunciations is a major problem for the traditional orthography, and contributes to the high rate of phoneme-grapheme inconsistency[11]. Yet on the other hand, he does not consider these variations in pronunciations to be a problem for i.t.a., and argues that the reader uses contextual clues to aid recognition from these acoustic approximations[12]. He is prepared to rationalize that acoustic proximity is sufficient for word recognition in i.t.a., but not in the traditional orthography, when, in fact, i.t.a., by concentrating solely upon phonological accuracy, destroys most of the semantic and syntactic information available to the reader in the traditional alphabet.

It seems appropriate to investigate the debate aroused by Pitman's claims and the empirical research which those claims engendered, in order to determine whether or not one could deduce that there is some underlying causal interrelationship among them. If there is, and if that causal link is seen to be the augmented

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11 Ibid., p. 127.

12 Ibid.

alphabet invented by Pitman, then it could be concluded that there is sufficient empirical evidence to support Pitman's contentions, and to elevate them to the status of a theory.

The present study adopts Van Dalen and Mayer's[13] definition of a theory as a "conceptual construct which presents an underlying principle to explain and account for facts established by testing hypotheses." Science comprises of two main components: the making of observations, or the collection of facts, that is, the empirical component; and the systematic attempt to explain observed facts, that is, the theoretical component. According to Van Dalen and Mayer[14], Hull[15], King[16], Cohen[17], and Nagel[18], the theoretical statement is the common thread which runs through observed facts. It is a statement of

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13 Deobald B. Van Dalen and W.J. Mayer, Understanding Educational Research, New York, McGraw-Hill, 1966, p. 62-71, 172.

14 Ibid., p. 62-71.

15 C.L. Hull, Principles of Behavior, New York, D. Appleton-Century, 1943, reprinted in Richard A. King, Readings for and Introduction to Psychology, New York, McGraw-Hill, 1961, p. 4-7.

16 Ibid., p. 4.

17 Percy S. Cohen, Modern Social Theory, London, Heinemann, 1970, p. 2-6.

18 Ernest Nagel, The Structure of Science: Problems in the Logic of Scientific Explanation, New York, Harcourt, Brace and World, 1960, p. 92-97.

explanation and prediction. King[19] writes that theories start as general guesses or postulates, which are then confirmed or rejected by experiments to test if the consequences are those predicted by hypotheses refined from the postulates. Confirmation of the hypotheses would be a valid basis for seeking to discover the underlying phenomenon to explain the facts established by the experiments: that is, the theoretical basis which will explain the empirical findings.

Nagel[20] and Cohen[21] emphasize that if a theory is to be used as an instrument of explanation and prediction, it must be linked to observable facts. In other words, it must be comprised of clear, unambiguous, and explicit statements which can be empirically tested. It must be unambiguous in the sense that it clearly asserts a causal connection between two or more types of events. For example, with reference to the i.t.a., one of Pitman's main postulates is that beginning reading is easier in a phonemically regular alphabet. Depending upon the outcome of the i.t.a. experiments, that postulate may or may not

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19 King, Readings for an Introduction to Psychology, Op. cit., p. 4.

20 Nagel, The Structure of Science: Problems in the Logic of Scientific Explanation, Op. cit., p. 93.

21 Cohen, Modern Social Theory, Op. cit., p. 3.

be elevated to the status of a theory.

Now, accepting as the present study does, Van Dalen and Mayer's[22] definition of a theory, and applying it to a consideration of the i.t.a., one finds that Pitman's underlying principle has generated a series of hypotheses which are in the process of being tested by empirical research. It may well be that this research will reveal that Pitman's claims warrant serious consideration as a theoretical contribution to beginning reading. However, if Pitman's claims are not supported by the research findings, or if the research findings are inconclusive, the formulation of a theory may be inappropriate or premature. The objective of the present study is to determine through a critical investigation of the literature whether or not a valid theoretical basis for the Initial Teaching Alphabet is supported by current research findings.

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22 Van Dalen and Mayer, Understanding Educational Research, Op. cit., p. 172.

CHAPTER II

STATUS OF THE INVESTIGATION: REVIEW OF THE RELATED THEORETICAL LITERATURE

The literature reveals that the issues raised by Pitman have aroused considerable debate among reading theorists. They also indicate that after almost two decades of i.t.a. usage, there is a need to synthesize the arguments on both sides of this debate, so as to determine whether or not any valid theoretical base exists for this approach to beginning reading.

This chapter begins with a discussion of the difference between beginning reading and mature reading. It continues with an examination of phoneme-grapheme irregularity in the traditional orthography and its effect upon reading failure. Then a consideration of the merits of learning to read in a phonemically regular initial alphabet is followed by a consideration of the effects of transferring from the i.t.a. to the traditional orthography once reading fluency is attained. Finally, the question which the present research is intended to answer is articulated.

1. Beginning Reading versus Mature Reading.

Pitman states that the task of learning how to read must be considered in two stages: beginning reading and fluent reading[1]. He contends that at the very beginning of the first stage, the child is pre-occupied with decoding the letters into meaningful sounds. In other words, he argues that the reading process at this stage is one of moving from symbol to sound to meaning, whereas in later, mature reading, the movement will tend to be directly from symbol to meaning. He contends that this beginning stage lasts for approximately two years, and that it is during this time that the more regular i.t.a. makes reading easier for the learner.

At first sight, there appears to be considerable support among reading theorists and psycholinguists for Pitman's interpretation of beginning reading. Buswell[2] writes that although the beginning reader approaches the printed page with full control of practically all the grammatical signals of his language, and much general information, his initial task is to recognize the printed symbols and to relate them to the corresponding speech

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1 James Pitman and John St. John, Alphabets and Reading, London, Pitman, 1969, p. 123.

2 Guy T. Buswell, "The Process of Reading," in The Reading Teacher, Vol. 13, 1959, p. 108-114.

symbols. Fries[3], Daniels[4], Stott[5], and Francis[6], among others, add further support to this contention that reading for the beginner is primarily a function of decoding the visual signals, letters, into sounds that have meaning. Smith[7] writes that because of the beginning reader's relative unfamiliarity with the structure of language, and his limited appreciation of the distinctive features of its graphic code, his recognition of words or phrases more often proceed via the identification of letters and letter combinations or syllables. Smith refers to this behaviour of the beginner as mediated word recognition, and distinguishes between it and the immediate word recognition of the fluent reader.

However, whereas most reading theorists maintain that the beginning reader will use a range of strategies

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3 Charles C. Fries, Linguistics and Reading, New York, Holt, Rinehart and Winston, 1963, p. 132.

4 John C. Daniels, "The Plane of Phonics," in John Downing (Ed.), The First International Reading Symposium, Oxford, 1964, London, Cassell, 1966, p. 43-61.

5 Dennis H. Stott, Roads to Literacy, Edinburgh, Holmes, McDougall, 1964, p. 31.

6 Hazel Francis, "Sentence Structure and Learning to Read," in British Journal of Educational Psychology, Vol. 42, Part 2, June 1972, p. 113-119.

7 Frank Smith, Understanding Reading: A Psycholinguistic Analysis of Reading and Learning to Read, New York, Holt, Rinehart and Winston, 1971, p. 124-125.

for word and phrase recognition, and argue that there is no need to confuse him with a temporary augmented alphabet, in Pitman's unsupported view the beginning reader requires a greater amount of auditory information than he gets from the traditional English alphabet. To meet this perceived need, he invented his i.t.a. When one considers that the i.t.a. was deemed necessary despite the fact that in its alphabet and that of the traditional orthography the consonants are almost identical, one must conclude that Pitman has acted upon the premise that the beginning reader requires auditory information for every letter in every word before he can recognize its sound and so comprehend its meaning. Although he refers to the usefulness of contextual clues in beginning reading, he really dismisses all else, other than the relationship between phonemes and graphemes in the task facing the beginning reader. This is an extremely restricted synthetic phonic approach, and it is not altered by his declared preference for look-and-say or whole word approaches to learning how to read[8].

Pitman's emphasis upon precise auditory information from every letter for the beginning reader is strongly challenged by psycholinguists, most of whom de-emphasize the significance of such precision in the recognition of

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8 Pitman and St. John, Alphabets and Reading, Op. cit., p. 149.

all visual symbols in the reading process. For example, Goodman contends that the reader selects the fewest, most productive cues necessary to arrive at recognition and meaning. He writes:

> Efficient reading does not result from precise perception and identification of all elements, but from skill in selecting the fewest, most productive cues necessary to produce guesses which are right the first time[9].

The point of divergence between Pitman and most of the reading theorists and psycholinguists is his over-compartmentalization of the acquisition of the reading skill into two distinct stages: beginning and mature reading. Indeed, it is contended that by expecting the learner to spend approximately two years reading in i.t.a., Pitman prolongs the beginning stage unduly. The consensus among reading theorists seems to be that the distinction between beginning and mature reading is one of emphasis. That is, that the beginning reader is primarily, but not exclusively, concerned with deciphering the alphabetic code into meaningful sounds. Psycholinguists like Smith argue that the reader's knowledge of the subject about which he is reading will facilitate his deciphering of the printed words to meaning, some via sound, and others

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9 Kenneth Goodman, "Reading: A Psycholinguistic Guessing Game," in L.A. Harris and C.B. Smith (Eds.), Individualizing Reading Instruction: A Reader, New York, Holt, Rinehart and Winston, 1972, p. 15-26.

directly from symbol to meaning. They propose that the more non-visual information the reader possesses on the subject matter, the less visual information he will require from the printed page to comprehend the writer's communication.

Briefly, there is little support for Pitman's extreme views on beginning reading which motivated him to invent a new alphabet to achieve an almost one-to-one phoneme-grapheme correspondence. The generally accepted position seems to be that by his insistence upon a completely regular phoneme-grapheme correspondence in a temporary initial alphabet, Pitman reveals a lack of appreciation of the linguistic strategies which the beginner uses to recognize and comprehend the message from the printed page. His conceptualization of the stages of the acquisition of reading competence contrasts sharply with the more dynamic conceptualization of many of his critics.

2. Phoneme-Grapheme Irregularity in the Traditional Orthography and Reading Failure.

As has been mentioned earlier in this study, Pitman rationalizes the need for his Initial Teaching Alphabet upon his convictions that: (i) the traditional English orthography is notoriously irregular in phoneme-grapheme correspondence; and (ii) this irregularity is the major

reason for failure in learning to read[10]. This section considers these two points separately. First, this investigation will determine to what extent Pitman's claims about the irregularity of the traditional orthography are supported in the related literature; and secondly, it will discuss whether the alleged irregularity is deemed by other theorists to be the major reason for failure in learning to read.

The complaints about the irregularities of the traditional English alphabet have a long history. John Hart complained of "the vices and faultes of our writing: which cause it to be tedious, and long in learning: and evill to read...[11]." Murray deplored the waste of national resources incurred in the attempt to make "child after child commit to memory the 20,000 contradictory facts of English spelling[12]." Pitman's grandfather, Isaac Pitman, was equally convinced about the perceptual obstacles set by an illogical orthography. And George Bernard Shaw complained about the confusion caused by an absurd orthography. He wrote:

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10 Pitman and St. John, Alphabets and Reading, Op. cit., p. 54.

11 John Hart, The Opening of the Unreasonable Writing of Our English Toung, 1551, quoted in Charles Fries, Linguistics and Reading, Op. cit., p. 8.

12 James Murray, In a Speech to the Philological Society, 1881, quoted in Pitman and St. John, Alphabets and Reading, Op. cit., p. 44.

> The English alphabet is reduced to absurdity by a foolish orthography based on the notion that the business of spelling is to represent the origin and history of a word instead of its sound and meaning[13].

Among modern reading experts, Burt and Brown lend support to the argument that the traditional orthography is inconsistent. Burt[14] contends that English has a more erratic orthography than any other contemporary language. Brown writes: "We have in English a writing system with so many inconsistencies that we do not have the full advantage of a phonetic orthography[15]."

While many reading and linguistics experts agree that the traditional orthography contains numerous irregularities, they provide little support for Pitman's case, and generally dismiss his claims about the difficulties of the traditional orthography as gross overstatements. For example, Hanna and Moore[16], Hanna and Hanna[17], and

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13 George Bernard Shaw, in the Preface to R.A. Wilson's Miraculous Birth of Language, quoted in Roger Brown, Words and Things, Glencoe, Ill., The Free Press, 1959, p. 62.

14 Cyril Burt, in the Foreword to F.W. Warburton and V. Southgate, i.t.a. An Independent Evaluation, London, Murray and Chambers, 1969.

15 Roger Brown, Words and Things, Glencoe, Ill., The Free Press, 1959, p. 64-65.

16 Paul R. Hanna and T. Moore, Jr., "Spelling-from Spoken Word to Written Symbol," in Elementary School Journal, 1953, p. 329-337.

17 Paul R. Hanna and J.S. Hanna, "The Teaching of Spelling," in National Elementary Principal, Vol. 44, Nov. 1965, p. 19-28.

Wijk[18] claim that spelling in the traditional orthography is between eighty and ninety percent regular, and Carroll[19] contends that while the phoneme-grapheme correspondences of the English alphabet are somewhat irregular, they are not nearly as irregular as they at first appear to be. Bloomfield[20], Bloomfield and Barnhart[21], Gibson et al.[22], and Hodges and Rudorf[23] argue that while correspondence between written and spoken English is weak if one relates individual letters and sounds, the correspondence between letter clusters, or syllables, and sounds is high. They contend that the individual letter is not sounded alone, but is sounded only in the context of other letters or

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18 Alex Wijk, Rules of Pronunciation for the English Language: An Account of the Relationship between English Spelling and Pronunciation, London, Oxford University Press, 1966, p. 45.

19 John B. Carroll, Language and Thought, Englewood-Cliffs, N.J., Prentice-Hall, 1964, p. 62.

20 Leonard Bloomfield, "Linguistics and Reading," in Elementary English, Vol. 19, 1942, p. 125-130, 183-186.

21 Leonard Bloomfield and C.L. Barnhart, Let's Read: A Linguistic Approach, Detroit, Wayne State University Press, 1961, p. 9.

22 E.J. Gibson, A. Pick, H. Osser and M. Hammond, "The Role of Grapheme-Phoneme Correspondence in the Perception of Words," in American Journal of Psychology, Vol. 75, 1962, p. 554-570.

23 Richard E. Hodges and E.H. Rudorf, "Searching Linguistic Cues for the Teaching of Spelling," in Elementary English, Vol. 42, May 1965, p. 527-533.

the word. Carol Chomsky adds another dimension to this argument concerning symbol-sound correspondence in the traditional orthography; and, in so doing, strengthens and extends the attack on Pitman's position. She maintains that while it is true that English spelling in many instances is deficient as a phonetic transcription of the spoken language, when viewed from the underlying structure in its representation of meaning, the traditional orthography is a near optimal system for representing the spoken language. She writes:

> ...the unconventional spelling of words corresponds more closely to an underlying abstract level of representation within the system of the language than it does to the surface phonetic form that the words assume in the spoken language[24].

To illustrate her argument, she notes that in a phonemically regular alphabet, where one-to-one phoneme-grapheme correspondence is the major objective, words which undergo pronunciation shifts when suffixes are added to them (e.g., nation - national; nature - natural; sane - sanity), or words with phonetic variations of consonants (e.g., medicate - medicine; critical - criticize; resident - residential), will have to receive two spellings although they are not different words in the sense that "nation"

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24 Carol Chomsky, "Reading, Writing, and Phonology," in Harvard Educational Review, Vol. 40 (2), 1970, p. 287-309, reprinted in Frank Smith, Psycholinguistics and Reading, New York, Holt, Rinehart and Winston, 1972, p. 91-104.

and "notion" are different words, but are different forms of the same word. She concludes:

> By being 'unphonetic' in all these cases, by not exhibiting grapheme-phoneme correspondence, the orthography is able to reflect significant regularities which exist at a deeper level of the sound system of the language, thus making efficient reading easier[25].

Substantially the same argument is advanced by Smith, who dismisses as irrelevant any claims that the traditional orthography is irregular or illogical. He argues that a good deal of information will be lost if traditional English spelling were altered in the quest for easier pronunciation cues, and that such phonemic regularity would make meaningful reading more difficult. He writes:

> Spelling reform might make words a little easier to pronounce, but only at the cost of other information about the way words are related to each other, so that rationalizing words at the phonological level might make reading more difficult at the syntactic and semantic levels[26].

Perhaps the most forceful specific rebuttals to Pitman's claims have come from Stott. He argues that Pitman has grossly overstated the supposed confusions caused by the irregularities of the traditional orthography, without providing any clinical or experimental evidence or

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25 Ibid., p. 97.

26 Smith, Understanding Reading, Op. cit., p. 172.

psychological argument to support his claims, and points out that by Pitman's own admission, i.t.a. has not achieved a one-to-one phoneme-grapheme correspondence. Consequently, he contends, i.t.a. has nothing to contribute to the improvement of beginning reading, and only serves to add further complications to the learner's task. Stott concludes: "Pitman's initial teaching alphabet bears the stamp of an a priori idea by a not very knowledgeable amateur inventor supported by post hoc arguments."[27]

In summary, it can be stated that while there is some acknowledgement that the traditional English orthography is somewhat irregular in phoneme-grapheme correspondence, there is consensus among reading and linguistics experts that Pitman's criticisms of the traditional alphabet are naive and overstated reactions to an extremely complex issue, and are based on a simplistic concern for phonemic regularity.

In the section immediately following, the validity of Pitman's contention that the phoneme-grapheme irregularity of the traditional orthography is the major reason for failure in learning to read remains to be considered. As was noted earlier, Pitman is convinced that other variables are unfortunate scapegoats in the debate on the

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27 Stott, Roads to Literacy, Op. cit., p. 122.

problems of beginning reading.

There is virtually no support among reading experts for Pitman's position. In point of fact, there is general consensus among reading specialists that the difficulties in early reading are caused mainly by a lack of understanding of the reading process which manifests itself in inadequate and inappropriate teaching methodology. Bloomfield and Barnhart[28], Roberts[29], Stott[30], Carroll[31], and Daniels[32] argue that the difficulties which the inconsistencies may cause the beginning reader can be removed if greater attention is placed upon the order in which the grapheme-phoneme correspondences were introduced. Carroll writes:

> ...the learner needs to be presented with systematic sets of instances from which he can readily learn the discriminative function of those letters or combinations of letters which are sure guides to pronunciations[33].

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28 Bloomfield and Barnhart, Let's Read: A Linguistic Approach, Op. cit., p. 25.

29 Geoffrey R. Roberts, English in Primary Schools, London, Routledge and Kegan Paul, 1972, p. 26.

30 Stott, Roads to Literacy, Op. cit., p. 31.

31 John B. Carroll, "The Nature of the Reading Process," in L.A. Harris and C.B. Smith (Eds.), Individualizing Reading Instruction: A Reader, New York, Holt, Rinehart and Winston, 1972, p. 40-49.

32 John C. Daniels, "The Place of Phonics," in J.E. Downing (Ed.), The First International Reading Symposium, Oxford, 1964, London, Cassell, 1966, p. 46-61.

33 Carroll, Language and Thought, Op. cit., p. 63.

Daniels[34] and Stott[35] argue that i.t.a.'s radical changes are unnecessary, and make a strong plea for emphasis to be placed upon methods instead of upon alphabet reform. Daniels writes:

> The main trouble with i.t.a. is that it is a tool to deal with imagined difficulties, whereas the real question to be settled, if reading instruction is to be improved, will not be found in the gimmickery of the tools of reading, but in putting methods in order to improve it[36].

And Stott adds:

> ...the essence of good teaching is good method, and good method is based upon how children learn... So long as method - which should be central to the teacher's art - is neglected, we shall continue to fail with a large number of children[37].

Indeed, Morris[38], whose study Pitman quotes as one of his authorities for determining that reading failure was a significant problem in the United Kingdom, found that poor teaching was a major cause of reading failure.

While there is no agreement among critics of i.t.a. as to what are the most appropriate and efficient methods

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34 Daniels, "The Place of Phonics," Op. cit., p. 60.

35 Stott, Roads to Literacy, Op. cit., p. 135.

36 Daniels, "The Place of Phonics," Op. cit., p. 60.

37 Stott, Roads to Literacy, Op. cit., p. 135.

38 Joyce Morris, "How Far Car Reading Backwardness Be Attributed to School Conditions?" in John Downing (Ed.), The First International Reading Symposium, Oxford, 1964, London, Cassell, 1966, p. 181.

for teaching reading, there is, nevertheless, an overwhelming rejection of Pitman's criticisms of the traditional orthography as the major obstacle to learning to read.

3. Transition from the Phonemically Regular i.t.a. to the Irregular Traditional Orthography.

This section will deal with Pitman's contentions that (i) beginning reading is easier in a phonemically regular alphabet, and (ii) transfer from his phonemically regular i.t.a. to the traditional orthography presents no problems for the reader.

(i) The first part of Pitman's contention can be restated thus: the more regular the phoneme-grapheme correspondence of the orthography of a language, the easier will be the task of learning how to read in that language. So long as reading remained at the phonological level, there appears to be little scope for dispute with that contention. If reading consists merely of matching symbols and sounds, then the more regular their correspondence, the easier is the task at hand. Pitman argues that comprehension is of secondary importance in beginning reading, and so, in his terms, beginning reading is easier with a phonemically regular alphabet.

Pitman supports this contention with references to languages like Italian, Castilian Spanish, Finnish and

Russian, which are phonemically regular[39]. He estimates that children who learn to read in those languages with a regular phoneme-grapheme correspondence save one or two years in learning to read when compared with British or American children. It is absolutely astonishing that he does not indicate the evidence to support his estimate. Furthermore, he does not indicate whether any differences in the ease of learning to read may be due to factors other than orthographic regularity.

Reading specialists from some countries with phonemically regular orthographies have made similar speculative pronouncements on this issue. For example, Kyostio notes that

> ...the Finnish writing system is quite regular; that is each phoneme always has the same letter irrespective of its place in a word, and this feature enormously facilitates learning to read[40].

This would seem to lend some support to Pitman's position. However, Kyostio does not indicate whether the Finnish orthography is as efficient or logical on the semantic or syntactic levels as it is on the phonological level; nor does she refer to restricted usage of Finnish, as

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39 Pitman and St. John, Alphabets and Reading, Op. cit., p. 55.

40 O.K. Kyostio, "Reading in Finland," in J.E. Downing (Ed.), Comparative Reading: Cross-National Studies on Behavior and Processes in Reading and Writing, Toronto, Collier-Macmillan, 1973, p. 308-309.

compared to English, and the significance of this factor upon uniformity in pronunciation and one-to-one phoneme-grapheme correspondence. For these reasons one might suspect that Kyostio's support is not as strong as it first appears to be.

Feitelson provides further support for Pitman's contention by comparing learning to read in English with the same task in Hebrew. She writes:

> Hebrew boasts of a nearly one-to-one symbol-sound relationship.... Thus, with reference to symbol-sound correspondence, learning to read Hebrew is infinitely easier than learning to read English. For all practical purposes, it entails only learning one phoneme for each grapheme of Hebrew script[41].

Unfortunately, she also provides no empirical data to support her claim. Her contention is further weakened by the fact that she appears to be restricting her comparison to reading at the phonological level, as she restricts her claim to reading "with respect to symbol-sound correspondence."[41a]

Brown provides additional support for Pitman's claim, and speculates that if the English alphabet were consistently phonetic beginning reading would be greatly simplified. He writes:

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41 Dina Feitelson, "Reading in Israel," in J.E. Downing (Ed.), Comparative Reading, Op. cit., p. 434.

41a Ibid.

> If our writing were consistently phonetic you could simply teach them the letters of the alphabet corresponding to each sound, give them a little practice in analyzing words into sound elements, and they would have reading vocabularies as large as their speaking vocabularies[42].

Regretably, Brown neglects to indicate the empirical basis for his speculation.

It could also be contended that many of those reading specialists who do not advocate any reform of the English alphabet, but who advocate controlled vocabularies to prevent beginners from being overwhelmed by irregularities, provide support for Pitman's claim that phoneme-grapheme regularity equals easier reading. Certainly, no one has argued that greater inconsistency makes beginning reading easier. Indeed, most of those who have been critical of Pitman's claims for i.t.a., have countered that the traditional orthography is more regular (phonemically and structurally) than Pitman acknowledges, thereby conceding that there is some relevance between phonemic regularity and learning to read.

(ii) Clearly, Pitman is not alone in speculating about the merits of greater phoneme-grapheme regularity. Interestingly, however, Pitman's criticisms of the illogicalities of the traditional orthography do not compel him to propose a total reform of the alphabet. Instead, the

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42 Brown, Words and Things, Op. cit., p. 65.

i.t.a. is advanced as a temporary augmentation to the traditional Roman symbols, and is intended as a learning aid from which the beginner will transfer to the traditional orthography as soon as he becomes a fluent reader. He argues that the similarities between i.t.a. characters and those of the traditional orthography are so strong, especially as they relate to the "top coast lines" of the symbols, that the transfer process is accomplished almost without an awareness that it has happened.

Pitman recognizes that the efficacy of the i.t.a. will depend, not upon how fluently or easily beginners read in that medium, but upon the ease with which transfer to the traditional orthography is accomplished. He writes:

> ...the transition from reading i.t.a. texts to reading orthodox texts is smooth and effortless. The case for the new alphabet stands or falls on the validity of this assertion, because i.t.a. would possess little merit if early progress were bought at too high a price in later progress, if the time gained by bypassing the difficulties of orthodox spelling was equalled or exceeded by the time taken by the average reader in making the transition to orthodox texts[43].

There is some support for Pitman's enthusiasm about the ease with which transition occurs. Downing[44] proposes that by its greater phoneme-grapheme correspondence, i.t.a.

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43 Pitman and St. John, Alphabets and Reading, Op. cit., p. 141.

44 John E. Downing, "A Psycholinguistic Theory for i.t.a.," in Elementary English, Nov. 1970, p. 953-961.

clarifies the linguistic structure of English, and leads to a greater perception of phonemes, spoken words, graphemes and written words as individual units, and that consequently, upon transition, this clearer understanding of linguistic structure is utilized as a frame of reference for mapping the more complex traditional orthography. However, the more general reaction to Pitman's claims concerning the ease of transfer is one of skepticism. Roberts[45] and Stott[46] criticize the learning and unlearning necessitated by the use of i.t.a., and propose that the initial period of short gains in terms of early reading fluency may be lost when measured against the later ability to write in the traditional orthography. In fact, Stott argues that for most young readers the i.t.a. is not their first alphabet. He contends that since, in all likelihood, pre-schoolers will have met the letters of the traditional alphabet in home and other pre-school learning experiences, the introduction of the i.t.a. will mean presenting them with an alphabet which many may recognize as different, and then - after a year or two - telling them to revert to the original one. This will inevitably lead to serious confusion in the minds of most children. He writes:

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45 Roberts, English in Primary Schools, Op. cit., p. 27.

46 Stott, Roads to Literacy, Op. cit., p. 139.

> It is not the learning, but the unlearning of associations that presents the confusion.... What has been learnt remains, and has to be countermanded by additional acts of learning[47].

Other spelling reformers, while agreeing with Pitman that a greater amount of consistent acoustic information is needed to make beginning reading easier, contend that the i.t.a.'s reforms are likely to add further confusion by its use of sixteen new letters which must be learned and then, subsequently, unlearned by the beginner. Jones[48] argues that his Colour Story Reading approach is preferable to the i.t.a. because there is no difficulty for the child as he transfers to the, normally, black print on a white background of his regular reader: there are no alterations or augmentations to the traditional orthography in this approach. Fry[49] advances substantially the same arguments for the Diacritical Marking System approach. Wijk[50] contends that all attempts to alter the

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47 Ibid., p. 139-140.

48 J. Kenneth Jones, "Comparing i.t.a. with Colour Story Reading," in Educational Research, Vol. 10, June 1968, p. 226-234.

49 Edward B. Fry, "Comparing the Diacritical Marking System, i.t.a. and a Basal Reading Series," in Elementary English, Oct. 1966, p. 607-611.

50 Alex Wijk, Regularized Inglish, Stockholm, Almqvist and Wiksell, 1959, quoted in Warburton and Southgate, i.t.a. An Independent Evaluation, London, Murray and Chambers, 1969, p. 131.

traditional alphabet are unnecessary. He proposes that by removing the confusing letters in about ten percent of English spellings, beginning reading is greatly simplified with the traditional twenty-six letters.

To conclude this section, it seems reasonable to suggest that while there is general superficial support for Pitman's claim that greater phoneme-grapheme regularity equals easier beginning reading, the support reviewed is largely unsubstantiated by empirical evidence. However, Pitman's claim that the transition from the i.t.a. to the traditional orthography is smooth and effortless is virtually without support.

To recapitulate, this chapter attempted to examine the validity of Pitman's rationale for the Initial Teaching Alphabet against currently accepted reading and psycholinguistic theories, so as to determine to what extent the use of a temporary phonemically regular beginning alphabet is deemed to be desirable. This was done in three parts.

Part One discussed Pitman's contention that beginning reading is qualitatively different from fluent reading, and concluded that his conceptualization of the reading process is not supported by the prevailing reading theories, which do not divorce word recognition and comprehension in the extreme way that he does.

Part Two examined Pitman's claims about the irregularities of the traditional orthography, and the resulting hardship which these cause to the beginning reader. The literature appears to support the conclusion that the traditional orthography is not as irregular as it first appears to be, and that teaching methodology, and not perceived phoneme-grapheme irregularities, may well be the major cause of reading failure.

In Part Three two specific benefits claimed to result from the use of the i.t.a. The first is that beginning reading is easier in a phonemically regular alphabet than in one which contains many irregularities. The second is that eventual transfer from i.t.a. to the traditional orthography is achieved very smoothly and effortlessly. There is some speculative support for Pitman's claim that beginning reading is easier in a phonemically regular alphabet. However, his confidence in an unproblematic transition from the i.t.a. to the traditional orthography is not shared by most of his critics.

4. The Problem.

Pitman's development of the i.t.a. is predicated upon the assumption that the inconsistency in phoneme-grapheme correspondence in the traditional orthography is the crucial factor which prevents many young children

from learning how to read, and which makes that task more difficult for many others. Pitman contends that it will be more productive for the beginning reader to learn to read in a phonemically regular alphabet such as the i.t.a. Once reading fluency is attained, transfer to the traditional orthography follows easily. He is convinced that the i.t.a.-taught reader will emerge significantly ahead of those who are only exposed to the traditional orthography. These indictments against the traditional alphabet and the claims on behalf of the i.t.a. have been made without the apparent support of empirical data or psychological theory.

The literature cited up to this point offers the possibility for endless speculation about either the merit or lack of merit of the i.t.a. Clearly, some empirical evidence must be provided which can either support or refute Pitman's claims. Fortunately, since the i.t.a.'s introduction in the early 1960's, a substantial volume of research data has been accumulated on the purported efficacy of this initial teaching alphabet. It is held that an analysis of the results of those studies will lead to one of two conclusions. The first is that Pitman's claims do, in fact, comprise a theory. That is, to recall Van Dalen and Mayer's definition referred to earlier in this chapter, that there is some underlying phenomenon to explain results favourable to the i.t.a.

In Pitman's case, the underlying principle claims that phoneme-grapheme regularity as represented by the i.t.a. promotes easier acquisition of reading skills. Hypotheses testing this postulate would of necessity compare the performance of beginning readers taught by the i.t.a. and the traditional orthography. However, should the results not prove to be in favour of the i.t.a., we are led perforce to the second possible conclusion, which is simply that Pitman's claims do not find support in the literature.

Accordingly, the questions to be answered by the current study are:

1. To what extent does a critical investigation of the literature reveal support for Pitman's rationale on behalf of the i.t.a.?

2. Do the research findings reported in the literature provide a valid empirical base for the support of the theoretical formulations of the i.t.a.?

CHAPTER III

AN EXAMINATION OF THE RESEARCH FINDINGS

This chapter deals with two issues: Part One will present and discuss the pertinent empirical data accumulated from the i.t.a. research experiments; and Part Two provides a critical evaluation of the i.t.a. experiments to date.

In Part One the data from the empirical studies is examined to answer two specific questions: 1) Do beginning readers learning via i.t.a. read better than those learning via the traditional orthography? and 2) If i.t.a.-taught beginners have superior performances in reading while they are using that alphabet, is this superiority maintained after they have transferred to the traditional orthography? Consequently, the data will be examined for the attainment scores of the i.t.a. and traditional orthography groups when the subjects are tested in the medium of instruction, that is, subjects who are taught in the i.t.a. are tested in the i.t.a., and those who are taught in the traditional orthography are tested in that medium, and, later, when they are both tested in the traditional orthography.

This study endorses Pitman's contention that the case for i.t.a. stands or falls on the validity of the assertion that transfer from the phonemically regular

initial teaching alphabet to the traditional orthography is smooth and effortless. Therefore, if i.t.a.-taught readers do not obtain superior scores in the beginning, and do not maintain their early superiority in reading after their transition to the traditional orthography, then no case will have been established for the radical changes involved in the adoption of Pitman's i.t.a. The evidence will be presented to show that almost everywhere the empirical data indicates the same phenomenon: superior reading scores for the i.t.a.-taught beginners over those who begin in the traditional orthography, when both groups are tested in the medium of instruction, but a loss in this superiority of the i.t.a. group after transition.

Part Two, in providing a critical evaluation of the i.t.a. experiments, advances the argument that serious shortcomings make their results suspect. Consequently, the present study contends that even the results which show early superiority for the i.t.a.-taught students are inconclusive.

1. The Research Data

The Pretest-Posttest Control Group Design[1] is the model used in most of the i.t.a. experiments to date.

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1 Donald T. Campbell and Julian C. Stanley, Experimental and Quasi-Experimental Designs for Research, Chicago, Rand McNally, 1969, p. 13-24.

In this research design model a wide range of independent variables are controlled, leaving the orthography as the crucial variable, or treatment, underlying success. The dependent variable, or criterion of success, measured is reading achievement: word recognition, comprehension, accuracy, and speed - in the medium of instruction and in the traditional orthography.

As was noted earlier in this chapter, the results presented here will be of performances of the experimental and control groups in (i) the medium of instruction - that is the i.t.a. and the traditional orthography respectively and (ii) later, after transition, of both groups in the traditional orthography.

(i) Reading in the medium of instruction:

The studies examined in this section can be divided into two main categories in respect of the value of the information obtained about the relative effects of the two media. First, there are those studies in which the same reading material was written in the two different orthographies, thus ensuring that both groups were exposed to the same sequence of learning experiences from the reading materials. These researches are those of Downing[2],

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2 John A. Downing, The Initial Teaching Alphabet Reading Experiment, New York, Scott-Foresman, 1965, quoted in Warburton and Southgate, i.t.a. An Independent Evaluation, London, Murray and Chambers, 1969, p. 230.

Downing and Jones[3], Harrison[4], Milne[5], and Robinson[6]. Secondly, there are those researches in which the i.t.a. reading materials were different from the reading materials written in the traditional orthography. As such, the existence of such an obvious uncontrolled variable makes the evidence from the second group of researches no more than suggestive. This second group of researches include those by Mazurkiewicz[7], Tanyzer and Alpert[8], Shapiro and

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3 John A. Downing and B. Jones, "Some Problems of Evaluating the Initial Teaching Alphabet - A Second Experiment," in Educational Research, Vol. 8, Part 2, Feb. 1966, p. 100-114.

4 Maurice Harrison, Instant Reading, London, Pitman, 1964, quoted in Warburton and Southgate, i.t.a. An Independent Evaluation, Op. cit., p. 230.

5 A. Milne, "The Scottish i.t.a. Research," a Paper read at the Third International Reading Conference, Cambridge Univeristy, 1966, quoted in Warburton and Southgate, Ibid., p. 217-218.

6 H.M. Robinson, "Effectiveness of i.t.a. as a Medium for Reading Instruction," in A.J. Mazurkiewicz (Ed.), i.t.a. and the World of English, Hempstead, N.Y., Initial Teaching Alphabet Foundation, 1966, quoted in Warburton and Southgate, Ibid., p. 218.

7 A.J. Mazurkiewicz, "i.t.a. and T.O. Reading Achievement when Methodology is Controlled - Extended into Second Grade," in The Reading Teacher, Vol. 20, Part 8, 1967, p. 726-729.

8 H.T. Tanyzer and H. Alpert, "Three Different Basal Reading Systems and First Grade Reading Achievement," in The Reading Teacher, Vol. 19, Part 8, May 1966, p. 636-642.

Willford[9], Dell[10], and Bosma and Farrow[11].

In both groups of researches, when the students were tested in the medium of instruction, the results are consistently in favour of i.t.a. From among the group of researches in which the reading materials were constant for both groups, Downing and Jones[12] found that, after eighteen months' instruction, the i.t.a. group was superior in the Schonell Graded Word Reading test and the Neale Analysis of Reading Ability test in the areas of comprehension, speed, and accuracy. Within individual schools, they found that sixteen of the 17 significant differences were in favour of i.t.a. Similar findings were reported by Downing[13], Harrison[14], Milne[15], and Robinson[16].

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9 Bernard J. Shapiro and R.E. Willford, "i.t.a.-Kindergarten and First Grade," in J.R. Block (Ed.), i.t.a. as a Language Arts Medium, Hempstead, N.Y., i.t.a. Foundation, 1968, p. 61-65.

10 G.A. Dell, "The i.t.a. Approach to Reading," in Warburton and Southgate, i.t.a. An Independent Evaluation, Op. cit., p. 203-204.

11 R.L. Bosma and V.L. Farrow, "Teaching Reading with i.t.a.: A Research Report," in Reading Horizons, Vol. 6, Part I, 1965, p. 6-19.

12 Downing and Jones, "Some Problems of Evaluating the Initial Teaching Alphabet - A Second Experiment," Op cit., p. 100-114.

13 Downing, in Warburton and Southgate, i.t.a. An Independent Evaluation, Op. cit., p. 230.

14 Harrison, in Warburton and Southgate, Ibid.

15 Milne, in Warburton and Southgate, Ibid.

16 Robinson, in Warburton and Southgate, Ibid.

In the researches in which the reading media had been confounded with the materials, and from which the evidence is consequently less convincing, Mazurkiewicz[17] fround that 72.6% of the i.t.a. readers had progressed above the traditional orthography median after five months of instruction. In Tanyzer and Alpert's[18] research 68% of the i.t.a. subjects were placed above the median for the traditional orthography students according to the Detroit Word Recognition test, administered after six months of instruction. And Dell[19] found that the i.t.a. group was about eighteen months ahead of the traditional orthography group on the Schonell Graded Word Recognition test after four school terms. The paragraphs which follow detail some of the concerns which should affect those who might be willing to embrace the i.t.a. on the basis of the foregoing.

(ii) Reading in the traditional orthography:

As was noted in the previous section, in one of the more closely controlled studies, that of Downing and

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17 Mazurkiewicz, "i.t.a. and T.O. Reading Achievement when Methodology is Controlled - Extended into Second Grade," Op. cit., p. 729.

18 Tanyzer and Alpert, "Three Different Basal Reading Systems and First Grade Reading Achievement," Op. cit., p. 641.

19 Dell, in Warburton and Southgate, Op. cit., p. 231.

Jones[20], when the students were tested in the medium of instruction, sixteen out of the 17 significant differences were in favour of i.t.a. However, when these same subjects were later tested in the traditional orthography, there were no significant differences in thirteen schools, and three of the 4 significant differences were in favour of those students who learned to read in the traditional orthography. The first test administered to all these students in the traditional orthography was given when only seventeen percent of the i.t.a. students had transferred. However, tests were also administered in the traditional orthography after three years, when more than seventy-five percent of the i.t.a. students had transferred, and those results revealed the same trend in favour of those children who learned to read in the traditional orthography. Clearly, any early advantage supposedly gained through the use of the i.t.a. seems to be lost at the transition to the traditional orthography.

There is further evidence to suggest that i.t.a.'s early advantage is lost after transition. Cartwright and Jones[21] found that three years after the start of the

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20 Downing and Jones, "Some Problems of Evaluating the Initial Teaching Alphabet - A Second Experiment," Op. cit., p. 100-114.

21 D. Cartwright and B. Jones, "Further Evidence Relevant to an Assessment of i.t.a.," in Educational Research, Vol. 10, Part 1, 1967, p. 65-71.

second major i.t.a. experiment in Great Britain, when seventy-five percent of the i.t.a. students had made the transition to the traditional orthography, only one in 5 of the significant differences in the Schonell and Neale tests administered in the traditional orthography was in favour of the i.t.a. Milne[22] also concluded that his research showed that students taught in the traditional orthography catch up with their i.t.a.-taught counterparts. He found no significant difference between students learning via i.t.a. and those learning via the traditional orthography after three years instruction, on the Burt-Vernon Word Recognition and Southgate Word Selection tests, administered in the traditional orthography.

Among the researches in which reading media had not been confounded with the materials, only Downing[23] found that the i.t.a.-taught group was significantly superior after three years of instruction when the medium of testing was in the traditional orthography. However, even in this research, the performance of the i.t.a. group fell sharply after transition in all sections of the Schonell and Neale tests except reading speed.

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22 Milne, in Warburton and Southgate, Op. cit., p. 232.

23 Downing, in Warburton and Southgate, Ibid., p. 233.

Two interesting trends seem to be emerging in the data available from the various i.t.a. researches, and it seems opportune to discuss them here. In the first place, it will be recalled that some critics of i.t.a. maintain that Pitman's desire for a phonemically regular alphabet is inappropriate because the traditional orthography provides a near optimal medium for representing meaning in the English language. If, as Smith[24] argues, emphasis upon phonological accuracy makes reading more difficult at the syntactic and semantic levels, then this may be reflected in the reading comprehension scores of the i.t.a. subjects as compared with those of students who began in the traditional orthography. Indeed, the general tendency is for the i.t.a. subjects to perform less well in comprehension than in word recognition or accuracy. In many cases, the students taught by the traditional orthography score significantly better than their i.t.a. counterparts in comprehension. However, even where the results are in favour of the i.t.a., superiority in comprehension is considerably less marked than in word recognition. Thus, in Downing's[25] research, differences in mean scores in the Schonell Graded Word Reading test, administered in the

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24 Smith, Understanding Reading, Op. cit., p. 172.

25 Downing, in Warburton and Southgate, Op. cit., p. 234.

third year, are seven points in favour of i.t.a. in rate and accuracy, but only 2 points in favour of i.t.a. for comprehension. Hahn[26] and Mazurkiewicz[27] found that students taught in the traditional orthography scored significantly higher in "paragraph meaning" and "word study" sections respectively. In both cases the instrument used was the Stanford Achievement test.

Burt notes that whereas i.t.a.-taught students are almost consistently superior in accuracy, particularly in pronouncing single words, the results are less clear in comprehension and reading speed. He adds:

> In the second experiment [in the United Kingdom], the control groups which used t.o. were actually better at comprehension than those taught by the i.t.a. in 8 schools out of 13. In speed, the control groups in every school except two were faster;...[28].

This trend seems to lend support to Pitman's critics who argue that reading is considerably more than word calling.

Secondly, Pitman's case for i.t.a. is built largely upon his belief that his phonemically regular alphabet will make beginning reading easier for all

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26 H.T. Hahn, "Three Approaches to Beginning Reading Instruction - i.t.a., Language Arts and Basic Readers," in The Reading Teacher, Vol. 19, Part 8, May 1966, p. 590-594.

27 Mazurkiewicz, "i.t.a. and T.O. Reading Achievement when Methodology is Controlled - Extended into Second Grade," Op. cit., p. 728.

28 Burt, in Warburton and Southgate, Op. cit., p. 234.

students. If Pitman's contention is correct, then i.t.a. will present less difficulty than the traditional orthography does for children of lower intelligence. However, McCracken[29], Swales[30], Dell[31], and Downing[32] all found that between ten and 33 percent of students using i.t.a. experience considerable difficulty in beginning reading. This figure corresponds to the approximately sixteen percent of beginning readers whom Pitman recognizes as having difficulty in the traditional orthography, and whom he refers to as "the Submerged Sixth"[33]. Only Milne[34] found that i.t.a. helped the lowest IQ group most.

Warburton and Southgate[35] conclude that the weight of the research evidence suggests that i.t.a. is more

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29 R.A. McCracken, "A two-year longitudinal study to determine the ability of first grade children to learn to read using the Early-to-Read i.t.a. program." (An Interim Report of the first year), in Warburton and Southgate, i.t.a. An Independent Evaluation, Op. cit., p. 234.

30 T.D. Swales, "The Attainment in Reading and Spelling of Children who learned to read through the Initial Teaching Alphabet," in British Journal of Educational Psychology, Vol. 37, Feb. 1967, p. 126-127.

31 Dell, in Warburton and Southgate, i.t.a. An Independent Evaluation, Op. cit., p. 235.

32 John Downing, "The Initial Teaching Alphabet: Results after Six Years," in Elementary School Journal, 1969, p. 243-249.

33 Pitman and St. John, Alphabets and Reading, Op. cit., p. 3.

34 Milne, in Warburton and Southgate, i.t.a. An Independent Evaluation, Op. cit., p. 235.

35 Warburton and Southgate, Ibid., p. 266.

effective for bright than for dull children. If this is the situation, then one must conclude that factors other than orthographic inconsistency are at work to produce reading failure, and that i.t.a. provides assistance where it is not needed, but does little for those who continue to fail despite Pitman's claims.

2. Evaluation of the Research Experiments.

The second part of this chapter considers the possible influence of the Hawthorne Effect and other uncontrolled variables upon the results of the i.t.a. experiments to date.

(i) The Hawthorne Effect:

The first i.t.a. experiment was conducted in Great Britain, and was launched with great publicity. Television documentary programs and special feature articles in national newspapers and educational journals reported it as a large scientifically controlled experiment conducted by the Reading Research Unit of the University of London's Institute of Education in association with the National Foundation of Educational Research. All this publicity meant that considerable curiosity was aroused over Pitman's new Initial Teaching Alphabet and the claims made on its behalf. There is general agreement in the related literature that this publicity, combined with other factors,

worked to generate a Hawthorne Effect which operated to produce results in favour of the experimental group.

Cook[36] defines the Hawthorne Effect as a "phenomenon characterized by an awareness on the part of the subjects of special treatment created by artificial experimental conditions," and suggests that this awareness affects the dependent variable being measured, thus leading to ambiguous results. In other words, since those students and teachers using the i.t.a. were aware that they were involved in something special, and that their behaviour and performance were being closely scrutinized, they might have been driven to produce better than normal results.

Stott[37] notes that the i.t.a. teachers were given special workshops and meetings, and were fully aware that they were involved in an experiment. Furthermore, Stott contends that the fact that there were streams of visitors in the schools using i.t.a., and that a brochure was given to parents of children in the experimental group at specially arranged parents' meetings with school principals and the Head of the Reading Research Unit, must have subjected the children to influences and pressures by communicating to them that they were involved in something

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36 D.L. Cook, "The Hawthorne Effect in Educational Research," in Phi Delta Kappan, Dec. 1962, p. 116-122.

37 Stott, Roads to Literacy, Op. cit., p. 128.

special to do with their reading. He notes that the children in the control group were not subjected to the same pressures. Southgate[38] suggests that there was an element of the Hawthorne Effect to explain the apparent superiority of the i.t.a. group in the early stages of the first experiment. She argues that this "reading drive" could have affected not only the pupils and their parents, but also the enthusiasm of their teachers. In their appraisal of the i.t.a. research, Warburton and Southgate conclude that the novelty of the i.t.a. was sufficient to create a Hawthorne Effect advantage in favour of the experimental group. They write:

> The Hawthorne Effect has little effect on traditional orthography classes, but it appears to account for pretty well half of the considerable superiority shown by the i.t.a. group[39].

While one might wonder how Warburton and Southgate arrive at this remarkable conclusion, one cannot avoid being impressed by the weight of the argument which attributes success to be, in large part, a function of the Hawthorne Effect.

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38 Vera Southgate, "Approaching the Initial Teaching Alphabet Results with Caution," in Educational Research, Vol. 7, Part 2, 1965, p. 83-96.

39 Warburton and Southgate, i.t.a. An Independent Evaluation, Op. cit., p. 252.

(ii) Uncontrolled Variables:

Whatever conclusions one draws about the possible influence of the Hawthorne Effect upon the experimental group, there is little doubt that in many of the i.t.a. experiments the research design was clearly faulty. Many researchers were especially remiss in leaving too many variables uncontrolled. This situation confounded the results obtained in those experiments, and makes it impossible to determine whether any perceived superiority could be attributed to the i.t.a., or to some other factor. Among the most obvious uncontrolled variables in the i.t.a. experiments were the efficiency of the teachers, time allocated to the teaching of reading, reading materials used, and teaching methodology employed. The possibilities for contamination by each of these uncontrolled variables will be discussed in turn.

a) The Teacher Variable:

Wilkinson[40] argues that failure to control the teacher variable in the first i.t.a. experiment greatly reduces the validity of its findings. He contends that when all else is considered, "the teacher is one of the most important factors in learning to read." Stott believes that, in the British experiments, there was a strong bias

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40 Andrew Wilkinson, The Foundations of Language: Talking and Reading in Young Children, London, Oxford University Press, 1971, p. 76.

in favour of the i.t.a. teachers. He maintains that those local education authorities which agreed to nominate classes and teachers for the new i.t.a. experiments would have been inclined to pick their most flexible teachers as those whom they considered suitable for i.t.a. work. He writes: "Naturally they would tend to choose teachers likely to agree to learn a new method and make a success of it[41]."

There is no indication that any attempts were made to match the teachers of the experimental and control groups in the first experiment.. However, in the second British experiment, Downing and Jones[42] controlled the teacher variable by having the same teacher teach both i.t.a. and traditional orthography classes - one in each half of the school day. In Robinson's[43] research teachers were switched from the i.t.a. class in the first year to the traditional orthography class in the second year and vice versa. In the major American experiments, Mazurkiewicz[44]

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41 Stott, Roads to Literacy, Op. cit., p. 128.

42 Downing and Jones, "Some Problems of Evaluating the Initial Teaching Alphabet - A Second Experiment," Op. cit., p. 100-114.

43 Robinson, in Warburton and Southgate, i.t.a. An Independent Evaluation, Op. cit., p. 241

44 Mazurkiewicz, "i.t.a. and T.O. Reading Achievement when Methodology is Controlled - Extended into Second Grade," Op. cit., p. 726-729.

matched teachers for age and experience; Stewart[45] matched for age, experience and level of training; and Tanyzer and Alpert[46] matched for experience, level of training and level of competence.

Perhaps the best methods of control of the teacher variable were those adopted by Downing and Jones[47], and Robinson[48]. In both of these experiments the model required the same teacher to teach both groups. In other words, each teacher was matched with herself, instead of with another. It could be argued that two people differ much more between themselves than the same person does in two different settings. However, while recognizing that having the same teacher teach both groups would provide the most stringent control of the teacher variable, it must be appreciated that even this model is not without its drawbacks. The results could have been confounded because the same person might have performed differently

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45 M.R. Stewart, "Two Years with i.t.a. - An Interim Report on the Bethlehem - Lehigh Research Project," quoted in Warburton and Southgate, i.t.a. An Independent Evaluation, Op. cit., p. 241.

46 Tanyzer and Alpert, "Three Different Basal Reading Systems and First Grade Reading Achievement," Op. cit., p. 636-642.

47 Downing and Jones, "Some Problems of Evaluating the Initial Teaching Alphabet - A Second Experiment," Op. cit., p. 100-114.

48 Robinson, in Warbuton and Southgate, i.t.a. An Independent Evaluation, Op. cit., p. 241.

according to whether she was using i.t.a. or the traditional orthography. If, for example, i.t.a. does permit for an easier beginning, a spiral motivational effect might have occurred. Quicker progress in the i.t.a. class might have produced positive attitudes in the teacher which might have enhanced her work with the i.t.a. group.

Because it is so difficult, if not impossible, to achieve any more than a general control over the teacher variable, one cannot conclude with any confidence that the second and subsequent i.t.a. experiments were invalidated on this score. However, it must be reiterated that the fact that no attempt was made to control the teacher variable in the first i.t.a. experiment represents a major flaw in its design and reduces the significance of its findings.

b) The Time Variable:

Another serious weakness in the design of the first i.t.a. experiment, which was conducted by the Reading Research Unit of the University of London, was that no control was exercised over the time allocated to reading and reading-related activities. Stott[49] and Wilkinson[50] regard this omission as an inexcusable blunder, and one which invalidates

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49 Stott, Roads to Literacy, Op. cit., p. 125-126.

50 Wilkinson, The Foundations of Language: Talking and Reading in Young Children, Op. cit., p. 77-78.

any conclusions which may be drawn from its findings. Warburton and Southgate are also very critical of this weakness in the first experiment. They write:

> Obviously the control of time is very important since any method which is used twice as many hours (say) as another is obviously more likely to be successful[51].

Later experiments attempted to correct this error. In Robinson's[52] and McCracken's[53] experiments instructional time was equalized in all three groups, and regular and frequent checks were made to see that this time allotment was adhered to. Downing and Jones[54] requested that the teachers should equate their procedures as closely as possible; and Tanyzer and Alpert[55] suggested that the teachers should spend two-and-a half hours per day in direct reading instruction and related activities.

Except for the first i.t.a. experiment, there is no firm evidence that the time allocation factor might have resulted in a bias in favour of the i.t.a. groups.

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51 Warburton and Southgate, i.t.a. An Independent Evaluation, Op. cit., p. 255.

52 Robinson, in Warburton and Southgate, Ibid.

53 McCracken, in Warburton and Southgate, Ibid.

54 Downing and Jones, "Some Problems of Evaluating the Initial Teaching Alphabet - A Second Experiment," Op. cit., p. 100-114.

55 Tanyzer and Alpert, "Three Different Basal Reading Systems and First Grade Reading Achievement," Op. cit., p. 636-642.

c) Reading Materials Variable:

Although the hypotheses to be tested in the i.t.a. experiments suggest a comparison between the i.t.a. and the traditional orthography as media of instruction, the researchers often used different reading materials with each medium and so confounded the results which they obtained. Only in five of the research experiments conducted to date were the same materials used for both media. Downing[56], Downing and Jones[57], Harrison[58], and Milne[59] used the i.t.a. and traditional orthography versions of the Janet and John readers, and Robinson[60] used the Scott Foresman Multi-Ethnic readers for both groups. On the other hand, Tanyzer and Alpert[61] used the Early-to-Read Series for i.t.a., and the Sheldon Readers for the two control groups; Hayes[62] used the Early-to-Read Series for

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56 Downing, "The Initial Teaching Alphabet: Results after Six Years," Op. cit., p. 243-249.

57 Downing and Jones, "Some Problems of Evaluating the Initial Teaching Alphabet - A Second Experiment," Op. cit., p. 100-114.

58 Harrison, in Warburton and Southgate, i.t.a. An Independent Evaluation, Op. cit., p. 255.

59 Milne, in Warburton and Southgate, Ibid.

60 Robinson, in Warburton and Southgate, Ibid., p. 256.

61 Tanyzer and Alpert, "Three Different Basal Reading Systems and First Grade Reading Achievement," Op. cit., p. 636-642.

62 Robert B. Hayes, "ITA and Three Other Approaches to Reading in First Grade," in The Reading Teacher, May 1966, p. 627-630.

the experimental group, the Scott Foresman Series for the first traditional orthography control group, the Scott Foresman Series supplemented by Phonics and Word Power for the second control group, and the Lippincott Readers for the third control group.

It is impossible to see how any meaningful comparison can be made between children learning to read in different media if the books and materials are different. Such elementary blunders in the research designs of these experiments greatly reduce the credibility of their findings.

Even those experiments in which the same reading materials have been used can be criticized for their inappropriate choice of materials. Stott[63] and Reid[64] contend that the Janet and John reading series provided a built-in bias in favour of the i.t.a. group. They argue that since the Janet and John readers are planned on a sight word method, they will not provide phonic practice for the beginners in the traditional orthography. Stott notes that several of the letters of the alphabet do not occur at all as initials in the early books, and that

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63 Stott, Roads to Literacy, Op. cit., p. 131-132.

64 Jessie D. Reid, "Evaluations 10," in J.A. Downing (Ed.), The i.t.a. Symposium, London, NFER, quoted in Warburton and Southgate, i.t.a. An Independent Evaluation, Op. cit., p. 260.

those which do occur are not repeated often enough to give the traditional orthography readers the same kind of phonic practice which the i.t.a. readers were getting. And Reid contends that by not controlling the vocabulary for phonic regularity, the Janet and John readers provide inferior phonic soil for beginners in the traditional orthography, while they do not present the same problems for i.t.a. beginners[65]. Both critics maintain that the transliterated i.t.a. versions become phonic readers. They contend that since the students have to learn the sounds of the new i.t.a. letters, they and their teachers will resort to phonic approaches because of the symbol-sound regularity. Indeed, Warburton and Southgate[66] found that British teachers who were using i.t.a., admitted to using phonic approaches right from the start of their programs. Consequently, Stott and Reid seem to establish a strong case that what were being compared were not two alternative media of instruction, but a sight method and a phonic method of teaching beginning reading.

It seems that the reading materials should not only be the same for both groups of children, but they should also be representative of the full range of materials

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65 Ibid.

66 Warburton and Southgate, Ibid., p. 52.

used in schools. More pointedly, perhaps, there seems to be a need to compare the relative attainments of students learning to read with the i.t.a. and traditional orthography versions of a reading series with great phonetic regularity.

d) The Methodological Variable:

Pitman[67] and Downing[68] have insisted that i.t.a. is merely a simplified medium for representing English and is definitely not a method of teaching reading. Consequently, in the i.t.a. experiments, teaching methodology was not treated as a variable to be controlled, although Southgate and Warburton found that most teachers admitted to using synthetic phonic approaches because they found i.t.a.'s logical one-to-one phoneme-grapheme relationship especially suitable for an early emphasis upon phonics. It is difficult to comprehend how a medium which lays its claims for acceptance upon its logical phoneme-grapheme correspondence can avoid being associated with a phonic approach. Indeed, in the workshops designed to prepare the teachers for their work with i.t.a., such exercises for synthetically decoding and encoding words in the new alphabet were an important part of the training.

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67 Pitman and St. John, Alphabets and Reading, Op. cit., p. 117.

68 John A. Downing, "Alternative Teaching Methods in i.t.a.," in Elementary English, Nov. 1968, p. 942-951.

All these uncontrolled variables lead to great ambiguity of interpretation when one tries to determine what precise factor produced the results which suggested a superior performance in reading by the i.t.a. groups. There is no compelling reason to lead to the conclusion that the apparent success was due to the new medium, and not one of the other factors discussed here. Diack[69] and Stott[70] contend that, because of its phonemic regularity, i.t.a. facilitates a phonic method of teaching reading, and that it is this phonic approach, and not i.t.a. per se, which accounts for its apparent success. If one accepts these criticisms, then one is bound to view the results favourable to the i.t.a. with increased suspicion and skepticism.

3. Summary.

To recapitulate, in Part One of this chapter an examination of the available empirical data revealed that there is some evidence to suggest that those students who learn to read with i.t.a. have better attainment scores than their counterparts learning via the traditional orthography, when both groups are tested in the medium of instruction, but that this early superiority is not sustained

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69 Hunter Diack, "Evaluations 3," in Downing (Ed.), The i.t.a. Symposium, Op. cit., p. 259.

70 Dennis Stott, "Anti i.t.a.," in The Teacher, Jan. 1965.

after transition. Furthermore, it was concluded that the available data seems to indicate that the i.t.a. subjects' superior attainments were mainly in the phonological areas of reading and, generally, did not extend to comprehension.

Part Two considered the contaminating influence of the Hawthorne Effect upon the i.t.a. group's performance. It also examined the major experiments which have been organized to determine the efficacy of i.t.a., and concluded that the presence of uncontrolled variables in all the researches to date has confounded their findings and questioned their credibility.

In the final chapter, the issues raised in the body of this dissertation will be syntheisized in order to determine whether a valid theoretical basis for Pitman's Initial Teaching Alphabet is supported by the literature.

CHAPTER IV

SUMMARY AND CONCLUSIONS

This study examined Pitman's claims for his Initial Teaching Alphabet against the theoretical positions of reading experts and psycholinguists, and the findings of the empirical research which that augmented alphabet generated, to determine whether a valid theory could be proposed for the i.t.a.

Pitman argues that the unreliability and irregularity of the traditional orthography is the major reason why many young children fail to learn to read, and proposes that beginning reading is very much easier with his Initial Teaching Alphabet which, by having forty-four letters to match the forty-or-so phonemes in English, achieves an almost one-to-one sound-symbol correspondence. He contends that upon attainment of fluency with i.t.a., the child is able to transfer to the traditional orthography without any loss of facility. Pitman advocates the adoption of his i.t.a. as the medium of instruction in beginning reading, and states with confidence that i.t.a. will solve the problems of English-speaking beginners.

Pitman's claims have been supported by some educators in Great Britain and the United States of America. Downing, the author of a reading series in i.t.a., has been

one of Pitman's most enthusiastic supporters in Great Britain, while Mazurkiewicz has been identified as a notable proponent of i.t.a. in America. However, most experts in reading and linguistics have been very critical of Pitman's claims. The consensus of opinion among them is that Pitman has grossly exaggerated the difficulties which the traditional orthography presents to the beginning reader, and that his Initial Teaching Alphabet is a totally unnecessary invention.

The proponents of i.t.a. admit that that medium did not spring from any linguistic, educational or linguistic theory, but that the claims for its efficacy arise from "commonsense observations." As such, they concede that a valid theory has still to be proposed on behalf of i.t.a. Pitman's claims for i.t.a. as a superior medium to the traditional orthography for teaching beginning reading have been the subject of many research experiments. Most notable among the researches have been the two major longitudinal studies conducted in Great Britain to determine whether beginners learn to read more easily with i.t.a., and, more importantly, whether any early superiority is maintained after transition.

The present study reviewed the theoretical pronouncements for and against i.t.a., and investigated the empirical data to determine whether the findings are

supportive of Pitman's claims. The following question was generated to guide this investigation:

> Do the research findings reported in the literature provide a valid empirical base for the support of the theoretical formulations of the i.t.a.?

The present study accepted Van Dalen's[1] model of theory construction. As such, it sought to establish whether there was empirical data to confirm Pitman's hypotheses about the effects of i.t.a. on beginning reading. If his hypotheses were consistently supported by research findings and the underlying phenomenon was seen to be the i.t.a., then his speculations could be refined and be given the status of a theory. However, if they were not clearly supported by the accumulated empirical data, then the conclusion would have to be that no theoretical basis exists to support the i.t.a.

It will be recalled that Pitman's raison d'être for the invention of his i.t.a. is that the irregularity of the traditional orthography is the major cause of reading failure. However, both contentions in that statement, that is, (i) that the traditional orthography of English is highly inconsistent, and (ii) that reading failure is due mainly to the phoneme-grapheme inconsistencies in the traditional

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1 Deobald B. Van Dalen and W.J. Mayer, Understanding Educational Research, London, Murray and Chambers, 1969, p. 62-71, 172.

orthography, are little more than speculations by Pitman. The fallacy in his contention is revealed when he elaborates upon what he considers the major perceptual traps for the beginning reader. He provides no empirical evidence or convincing argument to support his claim that young children are confused by alternative ways of representing letters (e.g., upper- and lower-case, print, script), or by the combination of two or more letters to represent one sound (e.g., diagraphs such as sh, ch, ai) in the traditional orthography.

His second indictment against the traditional orthography is extremely naive. To suggest that the traditional alphabet of English is inconsistent in symbol-sound correspondence is not unreasonable; however, to argue that all other variables, such as teaching methodology, reading programs, quality of teachers, and learner pathologies are unfortunate scapegoats in the reading debate, is to reveal a bias in favour of a single explanation which indicates a lack of objectivity. This may explain why Pitman fails to note Morris'[2] discovery that poor teaching was a significant factor in reading failure in the extensive survey she conducted in Kent, England,

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2 Joyce Morris, "How Far Can Reading Backwardness Be Attributed to School Conditions?" in John Downing (Ed.), The First International Reading Symposium, Oxford, 1964, London, Cassell, 1966, p. 180.

although he relied heavily upon her study to bolster his claim that an alarming percentage of English students failed to learn to read. Clearly, he cited Morris out of context, when he chose only those of her comments which were favourable to his position.

Having set out to invent an initial alphabet which would have a one-to-one phoneme-grapheme relationship, Pitman soon realized that he had undertaken an impossible task. He concedes that the fluidity of English pronunciation due to racial, regional, international, and socio-economic factors makes it impossible to achieve a one-to-one phoneme-grapheme correspondence. Consequently, he is forced to accept that acoustic approximations will suffice, since the reader will use non-visual information and contextual clues to aid word recognition. One is compelled to question why Pitman thinks that acoustic approximations will suffice for i.t.a. but not for the traditional orthography. Pitman fails to recognize that the reader requires less acoustic information in the traditional orthography than in i.t.a. because the former alphabet provides a greater amount of semantic and syntactic information than does the i.t.a. For example, i.t.a. spelling fails to represent the differences in English homophones: i.e., words which have the same sound but different spellings and meanings. In such

cases, the different visual configurations in the traditional orthography provide an aid to comprehension in reading.

Pitman repeats the claim made by many advocates of spelling reform that beginning reading is easier in phonemically regular languages than in English. Yet, as Downing[3] concedes, there is practically no hard research data to support this claim. Even if it could be established that greater success is achieved in countries with phonemically regular alphabets, it does not follow that the alphabet is the independent variable which explains that superiority. It may be that their teaching methodologies are more appropriate and effective.

If one accepts that greater phoneme-grapheme regularity will make reading easier for beginners, it does not follow that an initial alphabet is the best means of achieving this regularity. It has been argued in the present study that regularity can be achieved by controlling the vocabulary of the traditional orthography for beginners. It is submitted that no convincing case has been established for the adoption of an initial alphabet, and the subsequent transfer to the traditional alphabet which such adoption will necessitate. Moreover, even if

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3 Downing, John A. (Ed.), Comparative Reading: Cross-National Studies of Behavior and Processes in Reading and Writing, New York, Macmillan, 1973, p. 219.

an initial alphabet were deemed advantageous, it does not follow that i.t.a., with its additional sixteen letters to augment the twenty-four letters it preserves from the traditional alphabet, will be the most efficient.

In conclusion, it is Pitman's own criteria for determining the efficacy of his Initial Teaching Alphabet which will be relied upon to contend that no valid theoretical basis can be proposed for that medium. It will be recalled that he suggested that i.t.a. will possess little merit unless it can demonstrate that beginners learn to read more easily in that medium than in the traditional orthography; and, more especially, that their early superiority in i.t.a. is maintained after their eventual transfer to the traditional orthography. The results of the numerous i.t.a. experiments reveal that while i.t.a.-taught beginners appear to learn to read more easily than those who learn via the traditional orthography, their early superiority is lost after transition. Therefore, this study must conclude that the findings of the research experiments to date do not provide sufficient empirical data to allow a valid theoretical basis for the Initial Teaching Alphabet.

Pitman's claims have been presented and found wanting. The challenge to which educators have perennially addressed themselves - that of helping more children to succeed at

reading - remains to be faced. It would seem that the i.t.a. is not the instrument which will aid concerned educators in their response to that challenge.

Recommendations for Future Research

The present study concluded that there is little efficacy in the use of i.t.a. as an alphabet in beginning reading, primarily because the students who learned via this medium did not maintain their early advantage after transition over those students who began in the traditional orthography. Perhaps the i.t.a. can be simplified in order to reduce the problems associated with transition. This is one area in which further research is needed.

There appeared to be some indication that greater phoneme-grapheme regularity facilitates easier reading in the beginning.

Acceptance of this premise has been the motivation behind numerous other attempts at alphabet reform. But such regularity in phoneme-grapheme correspondence need not be achieved in alphabet reform; it can be achieved by controlling the vocabulary which appears in beginning readers so that they contain only phonemically regular words. Further research needs to be conducted to determine the relative merits between i.t.a., other alphabet reforms which seek to minimize the difficulties caused by transition to the

traditional orthography, and the use of the traditional orthography when vocabulary is controlled for phonemic regularity. Although there are strong indications that alphabet reform may not be the answer to the reading problem, it should not be dismissed without subjecting the various inventions to rigorous empirical testing.

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A strongly pro-i.t.a. text, which contains a collection of articles on the historical background, the research experiments, suitable teaching methods, etc., of the i.t.a. The authors expound the merits of Pitman's invention for all, including beginning readers, special education readers, and adult illiterates.

Pitman, Sir James and John St. John, Alphabets and Reading, London, Pitman, 1969.

This text provides a good starting point for any research into the i.t.a. In it Pitman presents his rationale for inventing the i.t.a. He outlines the weaknesses he perceives in the traditional orthography, and traces his ancestors' involvement in alphabet reform. He proposes his initial teaching alphabet as the best solution to the reading problem, and argues against any need for permanent reform of the traditional alphabet.

Roberts, Geoffrey R., Reading in Primary Schools, London, Routledge and Kegan Paul, 1969.

A short, but very practical text which discusses the psychology of learning to read, offers suggestions for the effective teaching of reading. It also contains the author's arguments against the use of the i.t.a.

Smith, Frank, Understanding Reading: A Psycholinguistic Analysis of Reading and Learning to Read, New York, Holt, Rinehart and Winston, 1971.

Although this text does not contain a single direct reference to the i.t.a., it provides an excellent backdrop against which one should examine the question of alphabet reform. Essentially, Pitman's invention pre-supposes that the beginning reader requires specific acoustic information from every letter in a word. Smith presents the psycholinguist's argument that the reading process depends as much upon the non-visual information of the reader as upon the information which he receives from the printed page.

Stott, Dennis H., Roads to Literacy, Edinburgh, McDougall, 1964.

This text outlines Stott's synthetic-phonic approach to teaching reading. Of special interest to researchers of the i.t.a., it contains an excellent critique of Pitman's invention of the early i.t.a. experiments conducted in Great Britain.

Warburton, F.W. and V. Southgate, I.t.a.: An Independent Evaluation, London, Murray and Chambers, 1969.

This text is the major sourcebook of an objective evaluation of the present status of the longitudinal i.t.a. experiments in Great Britain and the U.S.A. The authors provide a detailed historical background to the i.t.a., and report on their investigation to determine the extent of the i.t.a.'s use in British primary schools.

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APPENDIX 1

ABSTRACT OF

A Critical Investigation of the i.t.a.: Rationale and Research Findings[1]

This dissertation attempted to investigate critically the literature relating to the i.t.a. It sought to appraise the arguments for and against adopting this simplified writing-system in beginning reading, to appraise the research findings, and to consider whether there is any valid theoretical basis for this approach to learning to read.

The proponents of the Initial Teaching Alphabet argue that a major obstacle to learning to read is the irregularity of the traditional orthography, and that a simplified writing-system with a one-to-one phoneme-grapheme correspondence will make reading easier for all children. They assert that beginning readers will maintain their early advantage achieved in the i.t.a. after they transfer to the traditional orthography.

Most linguistics and reading theorists disagree with the claims made on behalf of the i.t.a. The consensus of opinion seems to be that the claim that the alleged phonological irregularity of the traditional orthography is the major cause of reading failure is inaccurate and

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1 Nazru Deen, Master's Thesis presented to the Faculty of Education of the University of Ottawa, Ontario, July 1976, vii-77 p.

naive. They argue that the traditional orthography is not as irregular as it first appears to be, and that, in any case, there is no evidence that phonemic regularity makes reading easier.

The research findings of the i.t.a. experiments do not appear to support the claims made by Pitman on behalf of the i.t.a. While there appears to be some early advantage for the i.t.a.-taught beginning readers, this advantage is lost after they transfer to the traditional orthography. In addition, numerous weaknesses in the research design of the i.t.a. experiments suggest the possibility of influence of a range of uncontrolled variables to confound the results obtained to date. Most especially, there is strong evidence to suggest that the Hawthorne Effect exerted a strong bias in favour of the i.t.a. groups.

The present study found that Pitman's postulates are not supported by linguistics and reading theorists, or by the available research data. As such, therefore, it concluded that there is no valid theoretical basis for the i.t.a.

INITIAL TEACHING ALPHABET
(i/t/a)

Reprinted from Pose Lamb, Linguistics in Proper Perspective, Merrill, Columbus, Ohio, 1967, p.37.

A Sample of Prose written in the i.t.a. Script

tradiſhonally wun ov ſhe first tasks ov ſhe infant scœol wos tœ teech ċhildren tœ reed. it is still, kwiet rietly, a mæjor preoccuepæſhon, sins reeding is a kee tœ much ov ſhe lerning ſhat will cum læter and tœ ſhe possibility ov independent study. in meny infant scœols, reeding and rieting ar treeted as ekstenſhons ov spœken langgwæj. ſhœs ċhildren hœ hav not had ſhe opportuenity at hœm tœ grasp ſhe part ſhat ſhæ plæ ar introduest tœ ſhem bie ſhe everydæ events and envieronment ov ſhe classrœm. messæjes tœ gœ hœm, letters tœ sick ċhildren, læbels tœ enſhuer ſhat mateerials and tœols ar returnd tœ ſhær proper plæs; aull caull for reeding and rieting. meny ċhildren first glimps ſhe plezuers ov reeding from lisening tœ storis red tœ ſhem at scœol. . . . bœks mæd bie teeċhers and ċhildren about ſhe dœings ov ſhe class or ov individeals in it figuer prominently amung ſhe bœks which ċhildren enjoi. ſhæ help ċhildren tœ see meening in reeding and tœ appreeſhiæt ſhe purpos ov ritten records.

Reprinted from F.W. Warburton and V. Southgate, i.t.a.: An Independent Evaluation, Murray and Chambers, London, 1969, p.297.