THE EFFECTS IN VARYING CONTEXTS ON THE ADDING AND "DROPPING" OF (h) BY GRADE IV AND GRADE IX STUDENTS ON NEW WORLD ISLAND, NEWFOUNDLAND

JOHN WHALEN


CENTRE FOR NFLD. STUDIES
OCT 16 1975
MEMORIAL UNIVERSITY
OF NEWFOUNDLAND

NOTICE

The quality of this microfiche is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us a poor photocopy.

Previously copyrighted materials (journal articles, published tests, etc.) are not filmed.

Reproduction in full or in part of this film is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30. Please read the authorization forms which accompany this thesis.

THIS DISSERTATION
HAS BEEN MICROFILMED
EXACTLY AS RECEIVED

AVIS

La qualité de cette microfiche dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de mauvaise qualité.

Les documents qui font déjà l'objet d'un droit d'auteur (articles de revue, examens publiés, etc.) ne sont pas microfilmés.

La reproduction, même partielle, de ce microfilm est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30. Veuillez prendre connaissance des formules d'autorisation qui accompagnent cette thèse.

LA THÈSE A ÉTÉ
MICROFILMÉE TELLE QUE
NOUS L'AVONS REÇUE

THE EFFECTS IN VARYING CONTEXTS ON THE ADDING AND "DROPPING" OF [h] BY GRADE IV AND GRADE IX STUDENTS ON NEW WORLD ISLAND, NEWFOUNDLAND

by

John Whalen

A Thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Education

Department of Curriculum and Instruction
Memorial University of Newfoundland

June 1978

St. John's Newfoundland

ABSTRACT

The basic purpose of this study was to observe the effects of the varying phonetic and grammatical contexts on the adding and the "dropping" of the aspirate.

To achieve this end, an instrument was employed. This instrument included 24 consonants and 16 vowels, 6 of which were lax or short; 9 of which were tense or long; and 1 which was the neutral vowel schwa [ə] (see Appendix A).

The population chosen for the study consisted of all Grade IV and Grade IX Pentecostal students on New World Island, Newfoundland.

The instrument was in two parts--Area A concerned the adding of the [h] and Area B concerned the "dropping" of the [h]. Both parts were divided into eleven different contexts in which people added or "dropped" the [h] sound.

Seventy student informants--forty-two at Summerford, twenty-eight at Chapel Island--were involved. The author found that [h] occurred more frequently:

i. at word boundaries rather than within words;

ii. before stressed vowels rather than before unstressed vowels;

iii. after preceding vowels rather than after preceding consonants;

iv. before unrounded vowels (front and low types) rather than before rounded vowels;

v. on nouns preceded by certain determiners; that is, with high frequency after the definite article *the*, with medium frequency after the indefinite article *a/an*, and with lower frequency after the demonstratives *this/that/these/those* (these results are compatible with the findings in (2) and (3) above).

ACKNOWLEDGEMENTS

I wish to acknowledge my debt to Dr. W.A.D. Riach, Chairman of my Committee, for advice during the development of this thesis; to Dr. Harold Paddock for providing linguistic guidance; to Dr. Frank Riggs for arranging the financial support necessary for conducting the field study; to Dr. Sandra Clarke and Dr. O.K. Crocker for agreeing to be examiners.

The cooperation of Mr. Solomon Reid, Principal of Inter-Island Academy, Summerford, and his Grade IV students, and of Mr. Marvin Ralph of G. Shaw Collegiate, Chapel Island, and his Grade IX students made possible collection of the raw material necessary for the study.

The friendly, courteous and patient staff of the Memorial University of Newfoundland Education Library made my task lighter.

I am very appreciative of the direction and assistance given me by those mentioned, and want to give special thanks to my wife, Judy, whose encouragement, advice, and help made this thesis possible.

TABLE OF CONTENTS

	Page
Abstract	ii
Acknowledgements	iv
Table of Contents	v
List of Tables	vii
CHAPTER	
I. INTRODUCTION	1
Background	1
Statement of the Problem	2
Summary of Dr. Riach's Statements on the Historical and Linguistic Background of Newfoundland Speech	3
Lack of Research	5
Need for Further Research	7
Justification of Thesis	7
Summary	8
II. METHODOLOGY	9
Introduction	9
The Locale of the Study and the Population Studied	9
Method of Data Collection	10
The Nature of the Instrument	11
Presentation of the Contexts	13
Summary	13
III. DETAILED PRESENTATION OF THE DATA	46
The Design of the Study	46
Selection of Schools	46
Instrument	47
Subjects	48
Sampling Procedures	49
Treatment of the Data	49

CHAPTER III (Continued) Page

Comparison of Adding and "Dropping" for Individual Items within Parts of the Instrument 50
A Comparison of Instrument Areas for Both Grades 55
Summary 58

BIBLIOGRAPHY 90

APPENDIX A 92

APPENDIX B 95

LIST OF TABLES

TABLE		Page
1.	Number of Students From Each of two New World Island Communities	14
2.	Data Sheet Used to Record an Added or "Dropped" [h]	15
3.	Area A - [h] Adding	16-27
4.	Area B - [h] "Dropping"	28-39
5.	Actual Additions vis à vis Possible Additions	
	42 Grade IV Students	40
	28 Grade IX Students	40
6.	Actual "Dropping" vis à vis Possible "Dropping"	
	42 Grade IV Students	41
	28 Grade IX Students	41
7(a)	42 Grade IV Students--Arranged in Order from Highest Additions of [h] to Lowest Addition of [h]	42
7(b)	28 Grade IX Students--Arranged in Order from Highest Addition of [h] to Lowest Addition of [h]	43

TABLE		Page
8(a).	42 Grade IV Students--Arranged in Order from Highest "Dropping" of [h] to Lowest "Dropping" of [h]	44
8(b).	28 Grade IX Students--Arranged in Order from Highest "Dropping" of [h] to Lowest "Dropping" of [h]	45
	Raw Scores for Each Area of the Instrument	
	Adding	60-70
	"Dropping"	71-81
	Comparisons of Different Areas of the Instrument	
A9.	Adding Before Vowels	83
A10.	Areas of Instrument in Descending Order of [h] Addition (for 42 Grade IV Students)	84
A11.	Areas of Instrument in Descending Order of [h] Addition (for 28 Grade IX Students)	85
D9.	"Dropping" Before Vowels	86
D10.	Areas of Instrument in Descending Order of [h] "Dropping" (for 42 Grade IV Students)	87
D11.	Areas of Instrument in Descending Order of [h] "Dropping" (for 28 Grade IX Students)	88

TABLE Page

A-D12. The Eleven Areas of the Instrument Ranked in Descending Order of [b] Occurrences 89

CHAPTER I

INTRODUCTION

Background

The purpose of this thesis is to observe the effects in the varying phonetic contexts on the adding and the "dropping" of the aspirate, on New World Island, Newfoundland. (Throughout this thesis the term "[h] sound" refers to the aspirate). The usage of this sound among Grades IV and IX Pentecostal students in the New World Island area will be investigated and analyzed.

The whole idea of this thesis started from Dr. W.A.D. Riach's thesis,* which is an account of two thousand post-Grade XI students from various parts of Newfoundland and also Grade XI students from the Bay Roberts area. This is an in-depth study to record the distribution of the [h] sound, and Dr. Riach does not attempt to provide information on the linguistic contexts in which students added ~~or "dropped"~~ the [h] in reading. The purpose of Dr. Riach's study is to observe what the students do, with regard to the sound in question, in the school situation after eleven years of formal education.

---

*W.A.D. Riach, "The Aspirate and Lingua-Dental Fricative in Newfoundland Speech," Master's thesis, University of Kansas, 1969.

This author took up the challenge of providing information on the linguistic contexts* in which students added or "dropped" the [h]. With this information it will be possible to be more informed in attempting to change "home speech," in connection with the [h] sound.

It is the author's opinion that there is widespread "nonstandard" usage, but the quantitative amount is probably much less than is popularly thought. All outports are not similarly involved quantitatively; there is much difference. Where the "nonstandard" usage is present, it seems to be very tenacious, and it must, therefore, be tackled intelligently and with knowledge of its real nature if improvement is to be made. It is with this in mind that the author is taking a sophisticated look at the effects of varying phonetic contexts on the adding and the "dropping" of the aspirate.

Statement of the Problem

What is proposed is to find out where the adding and the "dropping"** of the [h] sound occurs by using an instrument involving vowels and consonants. Vowels show more clearly than the consonants how readily one may find differences within a single language. Some of the items in the

---

*both phonological (phonetic) and grammatical.

**"dropping" is given throughout in inverted commas to record the fact that in the author's opinion this is a colloquial term which is not linguistically accurate; a more accurate term might be "omitted." (If [h] is not present, how can it be dropped?)

instrument used were taken from Dr. Riach's instrument. His instrument had both single words and sentences and, thus, words were used in isolation and in context.

A description of the instrument used in this thesis can be found in Chapter II.

Summary of Dr. Riach's Statements on the Historical and Linguistic Background of Newfoundland Speech

Newfoundland speech was dominated by the accents of the southwestern counties of England and of Waterford and Cork in Ireland. Newfoundland speech, until very recent times, has been moulded by isolation both from its source in the British Isles and by the internal isolation of the different bays which often had little connection with one another.

Young Newfoundlanders from the outport settlement who seek their fortunes in increasing numbers in the capital city and on the mainland are at a linguistic disadvantage when they exhibit notable nonstandard usages. Children must be able to speak acceptably at home and in the social milieu of the outport, but in schools they need to learn and practice the forms of standard speech which they will require to use in the world of employment. A form of bilingualism, which would allow for dialectal usage in the narrower environment and acceptable educated speech for the wider environment, is required.

Professor Riach cites the findings of several authorities:

> In England the use of the (H) i.e. /h/ among the illiterate seems to depend upon emphatic utterance. Many persons when speaking quietly will never introduce the (H) but when rendered nervous or excited or when desiring to speak particularly well, they abound in strong and unusual aspiration. It is also singular how difficult it is for those accustomed to omit the [h] to recover it and how provokingly they sacrifice themselves on the most undesired occasion by this special shibboleth. In endeavouring to pronounce the fatal letter they generally give themselves great trouble and consequently produce harshness quite unnatural to those who pronounce (H) naturally.[1]

> Many novelists would have us believe that people who drop their aspirates place false aspirates before every vowel that should have no /h/; such systematic perversion is not, however, in human nature. But they sometimes inadvertently put a /h/ between two vowels (rarely after a consonant) especially when the word is to receive extra emphasis and, of course, without any regard to whether the word "ought to" have /h/ or not. The observer, however, to whom /h/ or not /h/ is significant fails to notice the words which agree with his own rule but is struck with the instances of disagreement, deducing from them the impression of systematic perversion.[2]

> Anyone with direct knowledge of current English vernacular will know that dialect speakers are quite inconsistent in their pronunciation.[3]

> In England 'h' has vanished from all but educated speech and is thus a great social shibboleth; when the vulgar English speaker forces himself to sound 'h' he frequently misplaces it. In Ireland, Scotland

---

[1] Alexander J. Ellis, Early English Pronunciation, Part I (London: Early English Text Society, Asher & Co., 1869), p. 222.

[2] Otto Jespersen, A Modern English Grammar on Historical Principles (London: George Allen and Unwin Ltd., 1909), p. 943.

[3] Harold Orten, Survey of English Dialects (Leeds: E.T. Arnold and Sons Ltd., 1967), pp. 18-19.

> and America, popular English retains the sound. In standard English 'h' is now sounded only before a stressed syllable; thus only twice in 'she hung her head'. Anglo-Irish sounds 'h' even in unstressed syllables; for example, in 'her' in the sentence above.[4]
>
> In general the intrusive 'h' before a vowel seems to be most common before stressed syllables especially before extra-loud stress.[5]
>
> As a rule, in words of Old English, or Scandinavian derivation, the /h/ is preserved in standard speech but lost in Southern English folk dialects.[6]

Professor Riach finishes his remarks on the [h] sound with a reference to G.L. Brook who says that "initial [h] has disappeared in many English dialects though words beginning with a vowel or 'h' are often pronounced with initial [h] if they are emphatic."[7]

In brief, Professor Riach shows that the adding and "dropping" of the [h] sound is not just a Newfoundland phenomenon.

Lack of Research

Formal research carried out on the adding and "dropping" of the [h] sound in Newfoundland is nonexistent. A linguistic team, headed by Dr. Harold Paddock, Memorial

---

[4]Jeremiah J. Hogan, An Outline of English Philosophy Chiefly for Irish Students (Dublin and Cork: The Educational Co. of Ireland Ltd., 1934), p. 10.

[5]Ravin I. and Virginia G. McDavid, "/h/ before Semi-Vowels in Eastern United States," Language, Vol. 28, No. 1 (1952).

[6]Ibid.

[7]G.L. Brook, English Dialects (London: Andre Deutsch, 1963).

University, is presently working on a linguistic map of Newfoundland. But no research has been done to determine the linguistic contexts in which students add or "drop" the [h] sound; Professor Riach's study is geographically distributional.

Ronald Noseworthy, of Grand Bank, in his Master's thesis refers to the subject:

Allophone: (h)

1. (h) - usual distribution

/h/ was added to a few words with initial vowels in the idiolects of a small number of informants. It occurs before front and back simple vowels and the complex vowel /aw/ in the examples which were collected. Some of those examples are /howrz/ "oars", /hényin/ "onion", /híndiyə/ "India", /hæft/ ("aft" -- the rear part of something), and /hawtâws/ "outhouse."

/h/ is also added intervocalically between the determiners "the" and "a" and a word with an initial vowel. Examples of this are /əhǽdɪk/ "an attic", /ðəhówrnjɪz/ "the oranges", and /ðəhækt/ "the act". This was not heard very often. Another different example was /àhé rɪbz/ "all Arabs", in the idiolect of S.P. A possible explanation is that the glides or consonants which normally separate the vowels, for example /ðiyækt/ "the act" or /ənætɪk/ "an attic", have been replaced by /h/. However, not enough examples were collected to make any categorical statements accounting for the intervocalic addition of /h/. All that the evidence shows is a tendency for /h/ to occur here.[8]

Dropping

/h/ was dropped initially before vowels by many informants, and this dropping occurred both in separate words, such as /ówr frÂs/ "hoar frost" and /érən/ "herring", and at the beginning of sentences,

---

[8]Ronald Noseworthy, "A Dialect Survey of Grand Bank, Newfoundland," Master's thesis, Memorial University of Newfoundland, 1971.

such as /ərzyəklowz/ "Here's your clothes." Also, /h/ was sometimes dropped at the beginning of a secondary or tertiary-stressed syllable in the compound noun when preceded by a consonant or semivowel. This was not found very often among the informants, but some examples are: /kaw aws/ "cow house", /wɑtər ərs/ ("water horse" - newly-washed fish), and /wud ərs/ "wood horse."

It is important to note that all informants, in most cases, retained /h/ in positions where it would normally occur. No pattern for the addition or loss of /h/ could be ascertained, because not enough examples were collected, and the retention of /h/ or its loss varied freely with each informant. In order to make an in-depth study of this phenomenon it would be necessary to collect a great many examples of connected transcriptions.[9]

Need for Further Research

The need for further research has been suggested by both Riach and Noseworthy. Professor W.A.D. Riach, in his Master's thesis wrote that:

> Where the "non-standard" usage is present, it is very tenacious, and it must, therefore, be tackled intelligently and with knowledge of its real nature if improvement is to be made.[10]

Ronald Noseworthy, in his Master's thesis wrote that:

> In order to make an in-depth study of this phenomenon it would be necessary to collect a great many examples of connected transcriptions.[11]

Justification of Thesis

Professor Riach said that the problem of adding and "dropping" the [h] sound existed but did not say when and in

---

[9] Ibid.

[10] W.A.D. Riach, op. cit.

[11] Ronald Noseworthy, op. cit.

what context. There is a need for this to be discovered. It is not enough to *say* that this occurs. We have to pinpoint the areas *where* the [h] sound is added and dropped.

Summary

In this chapter, the author has given the reasons for the present study, has summarized Dr. Riach's statements on the historical and linguistic background of Newfoundland speech, has shown the lack of other research and the need for further research into the area, and has given justification for this study.

CHAPTER II

METHODOLOGY

Introduction

This study deals with the effect of varying phonetic contexts on the adding and "dropping" of the aspirate by Grade IV and Grade IX readers on New World Island.

This chapter will describe the following:

1. The locale of the study and the population studied;
2. method of data collection;
3. nature of the instrument;
4. presentation of the contexts;
5. summary.

The Locale of the Study and the Population Studied

This study was conducted on an island off the north-east coast of Newfoundland; namely, New World Island. The informants were Grade IV and Grade IX students attending two Pentecostal schools on the Island; namely, Inter-Island Academy and G. Shaw Collegiate. These students were bussed into these schools from ten different communities on the Island--Summerford, Cottles Island, Virgin Arm, Carter's Cove, Whale's Gulch, Morton's Harbour, Fairbanks, Cobb's Arm, Hillgrade, and Too Good Arm. A map of these places is appended (p. 96).

Table 1 shows the number of students from each of the various communities (p. 14).

Method of Data Collection

The main purpose of this study was to observe the effects of the varying phonetic contexts on the adding and "dropping" of the [h] sound. To achieve this end, an instrument was employed. This instrument included 24 consonants and 16 vowels, 6 of which were lax or short, 9 of which were tense or long, and 1 which was the neutral vowel or the schwa [ə]. The 6 lax or short vowels included in the instrument were /I/, /ɛ/, /æ/, /U/, /ʌ-ɔ/, and /a/. The 9 tense or long vowels employed in the instrument were /iy/, /uw/, /aH/, /ey/, /oy/, /ay/, /iw/, /ow/, and /aw/.

After making initial contacts with school officials and obtaining permission from the Superintendent of the School Board to do the study, the writer visited the schools during the third week of April. Meetings were held with the classes concerned and interviews were held with the principals and teachers involved. This took one day in each school. On the next day it was explained to the classes that some research was being conducted in the area of reading and their help was requested. They understood and agreed, and the author explained what he wanted them to do. Each student, in turn, would be requested to read a list of words. After emphasizing that this was not a test or a survey, and had nothing to do with the school or the school

board, it was explained to the class that each student, individually, would come to a room provided by the school and read a list of words into a tape recorder.

This list of words was made available to the students in advance so that they could familiarize themselves with the words. When a student came to the room, he sat at a desk with a tape recorder, was given the list of words and asked to read the words in the way he would ordinarily say them, as clearly as possible. The interviewer, sitting behind the student and, unobserved by him/her, recorded on a data sheet the number of times he/she added or "dropped" an [h]. (This, of course, could be confirmed on the tape later).

A tape recording was also made for subsequent double-checking and for permanent record.

The interviewer assigned the student a number and placed it on his data sheet. At the end of the session, the tapes were duly marked with school, grade, and student number; the data sheets placed in brown envelopes, and both items were brought to the Faculty of Education, Memorial University of Newfoundland, St. John's.

Table 2 shows a data sheet used to record an added or "dropped" [h] for each area on the instrument.

The Nature of the Instrument

The instrument used to gather data on the adding and "dropping" of the [h] was developed by Dr. Harold Paddock of the Linguistics Department, Memorial University, Professor W.A.D. Riach and myself. The instrument was divided into

two major areas: Area A covering the adding of the [h], and Area B covering the "dropping" of the [h]. Area A was broken down into eleven* different contexts in which people add the [h] sound. These eleven areas are:

1. Before isolated words.
2. After the indefinite article a/an in sentences.
3. Between a demonstrative ("this", "that", "these", "those") and single words.
4. Between the definite article "the" and single words.
5. Before highly stressed words which begin sentences.
6. (a) After a consonant between two syntactically connected words.
   (b) After consonant word-internally.
7. (a) After same vowel between two syntactically connected words.
   (b) After different vowel between two syntactically connected words.
   (c) After vowel word-internally.
8. With extra (contrastive) stress in sentences.

Area B had the same eleven different contexts in which people "drop" the [h] sound.

Tables 3 and 4 show Area A and Area B of the instrument, respectively.

---

*No. 6 is broken down into two contexts, and No. 7 into three.

Presentation of the Contexts

First of all, of the seventy who read the list of words in each of the eleven contexts, a breakdown of how many added the [h] sound was made. Secondly, after it was calculated how many students added the [h] sound in each of the items in each of the contexts, the percentage of students who did this was then calculated. The same procedure was followed for students "dropping" the [h] sound. The actual additions as opposed to the possible additions were then calculated, and the percentage of additions worked out. This is shown in Table 5 (p. 40). The same procedure was also done for the "dropping" of [h]. The percentages were then arranged in order for each particular context in the instrument. This is shown in Table 6 (p. 41). The eleven contexts of the instrument were then arranged in order, from highest addition to lowest addition, and shown in Tables 7(a) and 7(b) (pp. 42, 43), and in Tables 8(a) and 8(b) (pp. 44, 45).

Summary

This chapter has dealt with methodology--where the data collection took place and with what informants, the nature of the instrument, and the information obtained. All tables referred to are given at the end of the chapter.

TABLE 1

NUMBER OF STUDENTS FROM EACH OF NEW WORLD ISLAND COMMUNITIES

Places	Grade IV	Grade IX
1. Summerford	11	9
2. Cottles Island	12	12
3. Virgin Arm	8	4
4. Carter's Cove	2	0
5. Whale's Gulch	1	1
6. Morton's Harbour	1	1
7. Fairbanks	3	1
8. Cobb's Arm	1	0
9. Hillgrade	2	0
10. Too Good Arm	1	0
TOTAL	42	28

TABLE 2

DATA SHEET USED TO RECORD AN ADDED OR "DROPPED" [h]

Name: _____

Place: New World Island

← Areas of the Instrument →

Item Number in the List of Words ↓	1	2	3	4	5	6 two connecting words	6 word internally	7 same	7 word internally	7 different	8

TABLE 3

AREA A

[h] ADDING

1. Before isolated words.

1. India
2. end
3. apple
4. onion
5. odd
6. eat
7. ooze
8. all
9. eight
10. oil
11. aisle
12. united
13. open
14. outhouse
15. along
16. urgent

2. After the indefinite article a/an in sentences.

1. She has an itch to travel.
2. From the hills came an echo.
3. An apple lay on the floor.
4. She cried when she saw an onion.
5. My sister is an operator.
6. An eel went up the brook.
7. The doctor noticed an oozing from the wound.
8. They bored through the ice with an auger.
9. He drank an ale before going to bed.
10. For our snack we had soup and an oyster.
11. An icicle hung from the Christmas tree.
12. In court she had to take an oath.
13. Give me an ounce of pepper.
14. Please put that on an account for me.
15. I have an urgent message for you.

3. Between a demonstrative ("this", "that", "these". "those") and single words.

1. this itch
2. that echo
3. these apples
4. those onions
5. that operator
6. these eels
7. that ooze
8. this auger
9. that ale
10. these oysters
11. those ice-bergs
12. this use
13. that oath
14. these ounces
15. those accounts
16. this urge

4. Between the definite article "the" and single words.

1. the image
2. the elm
3. the axe
4. the ulcer
5. the ox
6. the evening
7. the ooze
8. the auger
9. the aim
10. the ointment
11. the island
12. the usual
13. the open
14. the owl
15. the affairs
16. the earnings

5. Before highly stressed words which begin sentences.

    1. Answer or else!
    2. Elsie, eat your supper!
    3. Indians! Indians! Look out!
    4. Oh my, look what I've done!
    5. Up she goes!
    6. Aaron, come here!
    7. Easter Eggs! Wow!
    8. Oops, I dropped it!
    9. Undo that buckle!

6 (a). After a consonant between two syntactically connected words.

1. Inuit igloo
2. big echo
3. red apple
4. old uncle
5. young otter
6. ancient Egypt
7. it is oozing
8. dark autumn days
9. huge airplane
10. Do you like oysters?
11. slob ice
12. some union members
13. some overtime
14. a big outboard
15. run along
16. black earth

6 (b). After consonant word-internally

1. spitoon
2. desire
3. dissolve
4. canteen
5. result
6. disable

7 (a). After <u>same</u> vowel between two syntactically connected words.

1. happy Eden
2. blue ooze
3. raw August
4. gray age
5. toy oyster
6. dry ice
7. blow open
8. Sir Ernest Blunt
9. to plow out

7 (b). After <u>different</u> vowel between two syntactically connected words.

1. pretty entry
2. funny act
3. grew ill
4. blue ox
5. saw Italy
6. raw apple
7. stray enemy
8. say "eye"
9. toy Indian
10. destroy Art
11. by eight
12. my accent
13. new image
14. low ulcer
15. high entry
16. slow ox

7 (c). After vowel word-internally.

1. Montreal
2. biography
3. pre-empt
4. radiation
5. reaction
6. creator
7. triumphant

8. In words with extra (contrastive) stress in sentences.

1. I didn't say she was pretty, I said she was ugly.
2. I was talking about the Lennon Sisters, not the Andrew Sisters.
3. He wants a banana, not an orange.
4. He caught trout, not eels.
5. She bumped her knee, not her elbow.
6. We shot the cow, not the ox.
7. The blood poured from the cut, it didn't ooze.
8. I just don't want Tom, I want all of you.
9. I said I wanted seven, not eight.
10. He put gas in his motor instead of oil.
11. Those are sheets of ice, not ice-bergs.
12. He belongs to a club, not a union.
13. Instead of closing the door, I want you to open it.
14. That is a store, not an outhouse.
15. Never mind my departure, think of my arrival.
16. Don't take it from my savings, take it from my earnings.

TABLE 4

AREA B

[h] "DROPPING"

1. Before isolated words.

1. hill
2. hen
3. happy
4. hook
5. hunt
6. hot
7. heat
8. hoot
9. haul
10. hate
11. Hoyle
12. high
13. human
14. hope
15. house
16a. hello
16b. hurt

2. After the indefinite article a/an in sentences.

1. We need a hitch for our trailer.
2. We had a heck of a time.
3. A happy day is coming.
4. He covered his face with a hood.
5. She hid it in a honey jar.
6. They just live a hop, skip, and jump from here.
7. Tom placed a heel on the floor.
8. He used a hoop to carry two buckets of water.
9. We called a halt to the meeting.
10. She was caught in a hail storm.
11. He used a hoist to lift the barrel.
12. That is a high shelf.
13. A human error caused the accident.
14. The mouse ran in a hole.
15. The wolf gave a howl before dying.
16. I was in a hurry to leave town.

3. Between a demonstrative ("this", "that", "these", "those") and single words.

1. this hitch
2. that hen
3. these happenings
4. those hooks
5. those humps
6. that hopper
7. these heels
8. that hoop
9. this halter
10. that hail
11. that hoist
12. those hides
13. this human
14. that home
15. these houses

16a. those hellos

16b. this herd

4. Between the definite article "the" and single words.

1. the hip
2. the head
3. the ham
4. the hood
5. the hum
6. the hoek
7. the heat
8. the hoot
9. the hall
10. the hail
11. the hoist
12. the hide
13. the hugeness
14. the hole
15. the howl
16. the herd

5. Before highly stressed words which begin sentences.

1. Hand me that pencil!
2. Hell! A place of torment.
3. Help! Help!
4. Hold that car!
5. Hark! Hark! The dogs do bark!
6. Harry, come here!
7. Heap those fish up there!
8. Hook the gate!
9. Health is better than wealth!

6 (a). After a consonant between two syntactically connected words.

1. fat hips
2. big hen
3. bad habit
4. sharp hook
5. old husband
6. spring hockey
7. his hoop
8. autumn haunts
9. huge hail
10. Do you know Ike Hoyle?
11. cab hire
12. some huge
13. some host
14. big house
15. black hurricane

6 (b). After consonant word-internally.

1. upheaval
2. unhandy
3. exhale
4. inhuman
5. unholy
6. outhouse

7 (a). After same vowel between two syntactically connected words.

1. dirty heap
2. blue hoop
3. raw hog
4. gray haze
5. toy hoist
6. dry hide
7. grow holy
8. per herd
9. cow house

7 (b). After <u>different</u> vowel between two syntactically connected words.

1. fairly heavy
2. lonely hack
3. blue hill
4. new hock
5. free house
6. straw hat
7. gray hem
8. say "hide"
9. toy hinge
10. destroy heart
11. by hate
12. my hackles
13. new hip
14. low hull
15. high heaven
16. slow hockey

7 (c). After vowel word-internally.

1. rehearse
2. behead
3. rehalve
4. rehash
5. rehire
6. reheat
7. rehouse

8. In words with extra (contrastive) stress in sentences.

1. I don't want a kiss, I want a hug.
2. I was talking about your foot, not your hand.
3. He blew the whistle, not the horn.
4. She bumped her toe, not her heel.
5. He went to heaven, not to hell.
6. We want cold water, not hot.
7. The cow broke her horn, not her hoof.
8. I painted the kitchen, not the hall.
9. I said you should love, not hate.
10. You should lower the sail instead of hoisting it.
11. I said "good-bye", not "hi."
12. He is a robot, not a human.
13. Instead of releasing it, I want you to hold it.
14. That is a barn, not a house.
15. You say she's sickly; I say she's healthy.
16. Don't take it from him, take it from her.

TABLE 5

ACTUAL ADDITIONS VIS À VIS POSSIBLE ADDITIONS
42 GRADE IV STUDENTS

Areas of the Instrument

	1	2	3	4	5	6		7			8
						two connecting words	word internally	same	word internally	different	
Actual Additions	82	80	39	124	36	38	0	27	13	76	75
Possible Additions	672	630	672	672	378	672	252	378	294	672	672
Additions- %	12	13	6	18	10	6	0	7	4	11	11

28 GRADE IX STUDENTS

Areas of the Instrument

	1	2	3	4	5	6		7			8
						two connecting words	word internally	same	word internally	different	
Actual Additions	50	54	52	141	20	30	0	31	14	91	118
Possible Additions	448	420	448	448	252	448	168	252	196	448	448
Additions- %	11	13	12	31	8	7	0	12	7	20	26

TABLE 6

ACTUAL "DROPPING" VIS À VIS POSSIBLE "DROPPING"
42 GRADE IV STUDENTS

Areas of the Instrument

	1	2	3	4	5	6		7			8
						two connecting words	word internally	same	word internally	different	
Actual "Dropping"	526	501	589	456	250	518	210	291	263	527	487
Possible "Dropping"	714	672	714	672	378	630	252	378	294	714	714
"Dropping" - %	74	75	82	68	66	82	83	77	89	74	68

28 GRADE IX STUDENTS

Areas of the Instrument

	1	2	3	4	5	6		7			8
						two connecting words	word internally	same	word internally	different	
Actual "Dropping"	401	239	431	171	148	346	145	198	178	314	180
Possible "Dropping"	476	448	476	448	252	420	168	252	196	448	448
"Dropping" - %	84	53	91	38	59	82	86	78	91	70	40

TABLE 7(a)

42 GRADE IV STUDENTS

Arranged in Order from Highest Additions of [h] to Lowest Addition of [h]

No.	Areas of the Instrument	Actual Addition	Possible Addition	% Addition	(From dropping % of [h]) Sounded	Difference Caused [h] Spelling
4.	Between the definite article "the" and single words	124	672	18	32	14
2.	After the indefinite article a/an in sentences	80	630	13	25	12
1.	Before isolated words	82	672	12	26	14
7c.	After vowel word-internally	76	672	11	26	15
8.	In words with extra (contrastive) stress in sentences	75	672	11	32	21
5.	Before highly stressed words which begin sentences	36	378	10	34	24
7a.	After same vowel between two syntactically connected words	27	378	7	23	16
3.	Between a demonstrative ("this", "that", "these", "those") and single words	39	672	6	18	12
6a.	After a consonant between two syntactically connected words	38	672	6	18	12
7b.	After different vowel between two syntactically connected words	13	294	4	11	7
6b.	After consonant word-internally	0	252	0	17	17

TABLE 7(b)

28 GRADE IX STUDENTS

Arranged in Order from Highest Addition of [h] to Lowest Addition of [h]

No.	Areas of the Instrument	Actual Addition	Possible Addition	% Addition	(From dropping % of [h]) Sounded	Difference Caused [h] Spelling
4.	Between the definite article "the" and single words	141	448	31	62	+31
8.	In words with extra (contrastive) stress in sentences	118	448	26	60	+34
7c.	After vowel word-internally	91	448	20	30	+10
2.	After the indefinite article a/an in sentences	54	420	13	47	+34
3.	Between a demonstrative ("this", "that", "these", "those") and single words	52	448	12	9	-3
7a.	After same vowel between two syntactically connected words	31	252	12	22	+10
1.	Before isolated words	50	448	11	16	+5
5.	Before highly stressed words which begin a sentence	20	252	8	41	+33
6a.	After a consonant between syntactically connecting words	30	448	7	18	+11
7b.	After different vowel between two syntactically connected words	14	196	7	9	+2
6b.	After consonant word-internally	0	168	0	14	+14

TABLE 8(a)

42 GRADE IV STUDENTS

Arranged in Order from Highest "Dropping" of [h] to Lowest "Dropping" of [h]

No.	Areas of the Instrument	Actual Dropping	Possible Dropping	% Dropping	% of [h] Sounded
7b.	After vowel word-internally	263	294	89	11
6b.	After consonant word-internally	210	252	83	17
6a.	After a consonant between two syntactically connecting words	518	630	82	18
3.	Between a demonstrative ("this", "that", "these", "those") and single words	589	714	82	18
7a.	After same vowel between two syntactically connected words	291	378	77	23
2.	After the indefinite article a/an in sentences	501	672	75	25
1.	Before isolated words	526	714	74	26
7c.	After vowel word-internally	527	714	74	26
4.	Between the definite article "the" and a word beginning with [h] in "standard" English	456	672	68	32
8.	In words with extra (contrastive) stress in sentences	487	714	68	32
5.	Before highly stressed words which begin a sentence	250	378	66	34

TABLE 8(b)

28 GRADE IX STUDENTS

Arranged in Order from Highest "Dropping" of [h] to Lowest "Dropping" of [h]

No.	Areas of the Instrument	Actual Dropping	Possible Dropping	% Dropping	% of [h] Pronounced
3.	Between a demonstrative ("this", "that", "these", "those") and single words	431	476	91	9
7b.	After vowel word-internally	178	196	91	9
6b.	After consonant word-internally	145	168	86	14
1.	Before isolated words	401	476	84	16
6a.	After a consonant between two syntactically connecting words	346	420	82	18
7a.	After same vowel between two syntactically connected words	198	252	78	22
7c.	After vowel word-internally	314	448	70	30
5.	Before highly stressed words which begin a sentence	148	252	59	41
2.	After the indefinite article a/an in sentences	239	448	53	47
8.	In words with extra (contrastive) stress in sentences	180	448	40	60
4.	Between the definite article "the" and a word beginning with [h] in "standard" English	171	448	38	62

CHAPTER III

DETAILED PRESENTATION OF THE DATA

The Design of the Study

This chapter includes a description of the instrument and a discussion of the reasons why it was selected for this study.

This study was designed to provide information on the linguistic contexts* in which students added or "dropped" their [h] when reading. It was conducted in 1977. At that time no systematic study of this phenomenon had been published for Newfoundland. It was hoped that the results might be helpful to teachers of the language arts and also to linguists to know more about the status of [h] in the population studied.

Selection of Schools

Two schools on New World Island (off the northeast coast of Newfoundland) were selected for the study for several reasons:

1. Both the elementary and high schools were large.
2. They both bussed students in from all areas of New World Island.

---

*Both phonological (phonetic) and grammatical.

3. For three years previous to the writing of this study, the writer was principal of the Inter-Island Academy, and knew all the New World Island students in G. Shaw Collegiate, Chapel Island.
4. The writer knew from experience that there was an [h] "problem" in the area.

Code letters X and Y are used in referring to the two schools. School X refers to Inter-Island Academy, Summerford, and School Y to G. Shaw Collegiate, Chapel Island.

Instrument

The instrument used in this study was designed by Dr. Harold Paddock of the Linguistics Department, Memorial University of Newfoundland; Dr. W.A.D. Riach; and myself. Many discussions and meetings were held while developing this instrument. Critical inspection of all areas and all items in the areas were made to ensure that all items represented the required linguistic contexts and also were within the reading repertoire of the students. Both criteria were sometimes not met.

The instrument was divided into two major areas: Area A, covering the adding of the [h], and Area B, covering the "dropping" of the [h].

The different areas of the instrument were based on possible effects of "broader" (mostly grammatical) variations in context, whereas the particular items in

each of the areas were based on possible effects of "narrower" (purely phonetic) variations in context.

Student data sheets were also used. Copies of the instrument and data sheets are on file.

Dr. Harold Paddock was responsible for the general design of the instrument and this design was based on his theories about the status of the aspirate in the dialect. These theories are as follows:

1. The adding of [h] occurs at word boundaries rather than within words.
2. The adding of [h] occurs before stressed vowels with the degree of stress being crucial since the greater the stress the greater the adding.
3. Preceding consonants suppress aspirates and preceding vowels encourage aspirates.
4. The nature of the following vowel might affect its incidences.

These theories were based on Dr. Paddock's experience in linguistics, his intuitions as a native speaker of a similar northeast Newfoundland dialect, and on his dialect research in Newfoundland.

Subjects

The study is based on recorded responses by students in the new New World Island schools referred to above.

Grade IV students were selected because they had been taught phonics for several years and would be

familiar with the [h] sound.

Grade IX students were selected because by now they should have "mastered" the [h] sound.

Both grades were selected so that a comparison could be made between the two classes.

Sampling Procedures

The procedures used in this study involved a first hand collection of data relating to students' readings of the instrument in the two schools. The sample included all Grade IV students in school X, and all Grade IX students in school Y who were from New World Island. These seventy students were selected for the administration of the instrument in schools X and Y. The results of the responses were computed.

Treatment of the Data

The samples for Area A (Adding) and Area B ("Dropping") of the instrument, obtained from school X and school Y, are treated as two separate samples.

The treatment of the data will be presented in the following order:

(a) Raw scores for each area of the instrument.

(b) Effects of broad variations:

1. Search for effects of "broad" variations in context by arranging parts of the instrument in order of % for

(i) Adding

(ii) "Dropping"

2. Comparison of adding and "dropping" for parts of the instrument.

3. Comparison of Grade IV with Grade IX.

(c) Effects of narrow variations:

1. Search for effects of "narrow" variations in context by arranging individual items within parts of the instrument in order of % for

(i) Adding

(ii) "Dropping"

2. Comparison of adding and "dropping" for individual items within parts of the instrument.

3. Comparison of Grade IV with Grade IX.

Comparison of Adding and "Dropping" for Individual Items within Parts of the Instrument

1. Adding

The results for the h-adding areas of the instrument are displayed below. Within each of the displays h-additions are shown both as actual numbers and as percentages of possible additions. Furthermore, the individual items within each area of the instrument have been rearranged in descending order of h-addition.

This arrangement allows us to test the second and fourth of Paddock's hypotheses, given above. His second hypothesis (that stress encourages adding) is supported

strongly by the data for in every area of the instrument where an item begins with an unstressed vowel there is a relatively low incidence of h-addition. Such items have been underlined for easy identification in the displays and appear at or near the bottom of the displays numbered A1, A2, A3, A4, A6a, A8.

In these displays the unstressed vowels appear in prefixes and it is noteworthy that when such a prefix receives more than minimal stress that the relative incidence of h-addition is greatly increased (see underlined undo in display A5).

However, Paddock's fourth hypothesis (that the nature of the following vowel might affect the incidence of h-addition) is not so obviously supported by the data displays. For example, the highest incidence of h-adding occurs after no less than ten different vowels. However, it is perhaps significant that four of these ten vowels have the highest incidence of h-adding more than once (i.e., /aH/ and /ey/ four times; /iy/ and /ɛ/ three times). However, the picture is clarified somewhat when we compare the vowels which have the lowest incidence of h-addition (see Table A9, p. 83) for these fall into one of two types. One type is the vowels of rather neutral quality; that is, stressed /ʌ/ and /ər/ as well as the

unstressed schwa, /ə/, which we have already noted under the discussion of Paddock's second principle above. The other type of vowel with low incidence is the type which is partially or wholly rounded (the rounded portions of vowels are underlined for easy reference in Table A9). It now becomes apparent that the highest incidence of h-adding also occurs before two types of unrounded vowels, that is, before low or open vowels such as (æ, a, aH) and before palatal vowels such as (I, iy, ɛ, ey). Most significant here is the high degree of agreement between Grades IV and IX which we find in various parts of the instrument (Table A9, p. 83).

The evidence for vowel effects is not nearly so obvious as that for stress effects. Therefore, the vowel effects might be further tested by using linguistic analyses and statistical techniques which are more sophisticated.

2. "Dropping"

The results for the h-"dropping" areas of the instrument are displayed below. Within each of the displays h-"dropping" is shown both as actual numbers and as percentages of possible "droppings." In addition, the individual items within each part of the instrument have been rearranged in descending order of h-"dropping."

If Paddock's theories are correct, then we would expect the results for h-"dropping" to be the converse of those for h-adding.

Unfortunately, when designing the "dropping" areas of the instrument we were unable to find suitable items which contained unstressed syllables beginning with the phoneme [h] in standard English. This is because of the limited distribution of [h] in modern English, that is, it now occurs in native English words only at the beginning of the stressed roots as in happy, unhappy, hook, unhook, hire, rehire, etc. It does occur in less stressed syllables in a number of borrowed words such as homogeneous, homogenized, and homosexual;, but we did not include such items for three reasons. One is that they tend to be literary or learned words, and a second is that the h-syllables of such words often have a medium (or tertiary) level of stress rather than the complete lack of stress which we required, and a third that such words were not in the students' vocabulary. This means that the h-"dropping" areas of the instrument were not as good a test of Paddock's second (i.e., stress) hypothesis as were the h-addition areas.

In addition, Paddock's fourth hypothesis (on the effects of the following vowel) was more weakly supported by the "h-dropping" data than by the h-adding data (compare Table D9 with Table A9). However, Table D9 is roughly the converse of Table A9 in that the vowels which

show the least addition of [h] in Table A9 also tend to show most "dropping" of [h] in Table D9. In particular, vowels which contained some rounding (underlined in Table D9) commonly occurred with a high degree of h-"dropping", just as they did with a low degree of h-addition. It therefore appears that lip-rounding of vowels tends to inhibit the pronunciation of [h] in the dialect. However, unlike Table A9, Table D9 shows no obvious tendency towards the inhibition of [h] before neutral-type vowels such as /ʌ/ and /ər/. This apparent anomaly is explained below.

Table D9 is also the converse of Table A9 in that the vowels which show the most addition of [h] in Table A9 also tend to show the least "dropping" of [h] in Table D9. Thus, in Table D9 we find that the least "dropping" of [h] occurs before ten different vowels, but that eight of them begin with either a low or open element or with a palatal element. In particular, the palatal vowel /ɛ/ shows the least "dropping" in seven cases, while the palatal vowel /iy/ has least dropping in four cases. It, therefore, appears that a lack of lip-rounding and/or either palatal or open articulation of the following vowel encourages the pronunciation of [h] in the dialect.

It is easy to explain why the results for "h-dropping" are not as clear-cut as those for h-addition. If Paddock were completely correct in his theory that the

aspirate has no phonemic status in the dialect then the results for "dropping" and adding would be more exact converses of each other. In fact, that they are not so indicates that the children tested have acquired some degree of awareness of [h] as a phonemic unit of English. This awareness, whether acquired in school or elsewhere, is, of course, reinforced by the presence of the letter h in the items of the "dropping" areas of the instrument. This serves to explain why our results for h-"dropping" are less striking than those for h-addition.

A Comparison of Instrument Areas for Both Grades

The variations in results among the eleven areas of the instrument are compared in four of the tables below--in Tables A10 and A11 for the h-adding areas, and in Tables D10 and D11 for the h-"dropping" areas.

In the two "dropping" Tables D10 and D11, the percentages of "dropping" has been subtracted from one hundred to give the percentages of actual [h] occurrence. These latter figures are also transferred to the fourth column of the adding Tables A10 and A11 so that the actual occurrence of [h] can be easily compared for each of the corresponding pairs of instrument areas. For example, Table D11 shows that the percentage of "dropping" by Grade IX students in area D4 of the instrument was thirty-eight, so that the actual occurrence of [h] after the definite article was 62 per cent (i.e., 100-38). This

figure of 62 per cent has been transferred to Table All (i.e., the adding table for Grade IX) where it is placed in the row of figures for the corresponding instrument area A4. This allows us to see at a glance that the percentage (62%) of [h] occurring in the "dropping" test is twice the percentage (31%) of [h] occurring in the corresponding adding area of the test. The difference between the adding and "dropping" results are calculated by subtracting the former from the latter and entering the result of the difference in the last column of Tables A10 and A11.

The most striking feature of these differences is that they are positive in twenty-one out of twenty-two cases; the only (small 3%) exception is found in Table A11 opposite part A3 (and D3) of the instrument. In most of the other twenty-one cases the percentage of [h] occurrence is strikingly greater in the "dropping" test than in the adding test. This indicates that the students of both grades were aware of [h] as a linguistic unit of English and that the presence of the letter h in the spellings of the "h-dropping" parts of the test actually encouraged them to pronounce [h] more frequently in the "dropping" parts of the instrument.

It appears that the Grade IX students were affected more strongly by the h spellings than were the Grade IV students. Not only is the Grade IX total of differences

larger (181 for Grade IX versus 164 for Grade IV) but the differences are very much larger for Grade IX in four parts of the instrument. The relevant figures from Table A11 are as follows:

No. and Type of Instrument Part		Grade IV difference	Grade IX difference
A4/D4	Between the and single words	+14	+31
A8/D8	In words with extra, contrastive stress in sentences	+21	+34
A2/D2	Between a/an and single words	+12	+34
A5/D5	Before highly stressed words which begin sentences	+24	+33

We cannot determine whether this difference between the two grades represents a greater awareness of [h] in the Grade IX students or merely a longer period of practice in controlling the [h] articulation. We suspect that the latter is more likely, since the Grade IX students appear to be able to control the [h] better in the context of phrases or whole sentences.

Another striking feature of Tables A10-A11 and D10-D11 is that Grades IV and IX appear generally to agree in their rankings of the parts of the instrument, based on the occurrence of [h] in each part. In order to test this impression, the Ranking Table A-D12 (p.89) was prepared. Perfect agreement among the four testings (i.e., IV Adding,

IX Adding, IV Dropping, IX Dropping) would have given ranking totals of 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, and 44. It is noteworthy that five of the actual rank totals (i.e., 16, 19, 23, 32, and 41) are very close to the ideal figures and that in some of the other cases there is a high degree of agreement among the four testings. We were, therefore, not surprised to find that W (the coefficient of concordence) turned out to be 0.80 for the data in our ranking table. An F test of W showed that it was highly significant ($p < 0.001$).

The author, therefore, concluded that the design of this instrument was adequate in that it enabled him to distinguish the effects of various linguistic contexts on the occurrence of [h]. For example, it can be said that [h] is much more likely to occur in the first three contexts named in Table A-D12 than in the last three contexts named in that table.

Summary

In this chapter it has been shown that [h] sound occurred more frequently:

1. at word boundaries rather than within words;
2. before stressed vowels than before unstressed vowels;
3. after preceding vowels rather than after preceding consonants;
4. before unrounded vowels (of the front and low types) than before rounded vowels.

RAW SCORES FOR EACH AREA OF THE INSTRUMENT

ADDING

A1. Before isolated words.

42 Grade IV Students					28 Grade IX Students				
Vowel	Item Number in the List of Words	Actual Adding	Possible Adding	% Adding	Vowel	Item Number in the List of Words	Actual Adding	Possible Adding	% Adding
aH	8. all	13	42	31	oy	10. oil	7	28	25
oy	10. oil	10	42	24	I	1. India	6	28	21
a	5. odd	8	42	19	ɛ	2. end	6	28	21
ʌ~ɔ	4. onion	7	42	17	ay	11. aisle	6	28	21
I	1. India	6	42	14	a	5. odd	5	28	18
æ	3. apple	6	42	14	ey	9. eight	5	28	18
ay	11. aisle	6	42	14	æ	3. apple	3	28	11
ey	9. eight	5	42	12	ow	13. open	3	28	11
ow	13. open	5	42	12	iy	6. eat	2	28	7
ɛ	2. end	4	42	10	iw	12. united	2	28	7
iy	6. eat	3	42	7	aw	14. outhouse	2	28	7
aw	14. outhouse	3	42	7	ʌ~ɔ	4. onion	1	28	4
ə	15. along	3	42	7	aH	8. all	1	28	4
uw	7. ooze	1	42	2	ə	15. along	1	28	4
iw	12. united	1	42	2	uw	7. ooze	0	28	0
ɚ	16. urgent	1	42	2	ɚ	16. urgent	0	28	0

A2. After the indefinite article a/an in sentences.

42 Grade IV Students					28 Grade IX Students				
Vowel	Item Number in the List of Words	Actual Adding	Possible Adding	% Adding	Vowel	Item Number in the List of Words	Actual Adding	Possible Adding	% Adding
iy	6. an eel	16	42	38	iy	6. an eel	10	28	36
æ	3. an apple	12	42	29	æ	3. an apple	8	28	29
ey	9. an ale	10	42	24	ey	9. an ale	8	28	29
ʌ~ɔ	4. an onion	9	42	21	ɛ	2. an echo	5	28	18
ɛ	2. an echo	6	42	14	ʌ~ɔ	4. an onion	5	28	18
aH	8. an auger	5	42	12	aH	8. an auger	5	28	18
I	1. an itch	4	42	10	oy	10. an oyster	4	28	14
oy	10. an oyster	4	42	10	aw	13. an ounce	3	28	11
a	5. an operator	3	42	7	I	1. an itch	2	28	7
uw	7. an oozing	3	42	7	ay	11. an icicle	2	28	7
ay	11. an icicle	2	42	5	a	5. an operator	1	28	4
aw	13. an ounce	2	42	5	uw	7. an oozing	1	28	4
ər	15. an urgent	2	42	5	ow	12. an oath	0	28	0
ow	12. an oath	1	42	2	ə	14. an account	0	28	0
ə	14. an account	1	42	2	ər	15. an urgent	0	28	0
	These items were used in sentences.								

A3. Between a demonstrative ("this", "that", "these", "those") and single words.

42 Grade IV Students					28 Grade IX Students				
Vowel	Item Number in the List of Words	Actual Adding	Possible Adding	% Adding	Vowel	Item Number in the List of Words	Actual Adding	Possible Adding	%
ɛ	2. that echo	8	42	19	ey	9. that ale	10	28	36
iy	6. these eels	7	42	17	a	5. that operator	8	28	29
ey	9. that ale	6	42	14	ɛ	2. that echo	6	28	21
a	5. that operator	3	42	7	ʌ~ɔ	4. those onions	4	28	14
I	1. this itch	2	42	5	aH	8. this auger	4	28	14
uw	7. that ooze	2	42	5	iy	6. these eels	3	28	11
aH	8. this auger	2	42	5	uw	7. that ooze	3	28	11
ay	11. those ice-bergs	2	42	5	ay	11. those ice-bergs	3	28	11
ow	13. that oath	2	42	5	I	1. this itch	2	28	7
æ	3. these apples	1	42	2	oy	10. these oysters	2	28	7
ʌ~ɔ	4. those onions	1	42	2	ow	13. that oath	2	28	7
oy	10. those oysters	1	42	2	ə	16. this urge	2	28	7
iw	12. this use	1	42	2	æ	3. these apples.	1	28	4
ə	16. this urge	1	42	2	iw	12. this use	1	28	4
aw	14. these ounces	0	42	0	aw	14. these ounces	1	28	4
ə	15. those accounts	0	42	0	ə	15. those accounts	0	28	0

A4. Between the definite article "the" and single words.

42 Grade IV Students					28 Grade IX Students				
Vowel	Item Number in the List of Words	Actual Adding	Possible Adding	% Adding	Vowel	Item Number in the List of Words	Actual Adding	Possible Adding	%
aw	14. the owl	18	42	43	ey	9. the aim	18	28	64
ɛ	2. the elm	16	42	38	ɛ	2. the elm	15	28	54
ay	11. the island	14	42	33	ay	11. the island	14	28	50
a	5. the ox	13	42	31	aw	14. the owl	14	28	50
ey	9. the aim	13	42	31	aH	8. the auger	10	28	36
ər	16. the earnings	9	42	21	oy	10. the ointment	10	28	36
æ	3. the axe	8	42	19	ow	13. the open	10	28	36
iy	6. the evening	8	42	19	æ	3. the axe	9	28	32
oy	10. the ointment	8	42	19	a	5. the ox	9	28	32
aH	8. the auger	6	42	14	uw	7. the ooze	8	28	29
ow	13. the open	6	42	14	iy	6. the evening	7	28	25
uw	7. the ooze	4	42	10	ər	16. the earnings	7	28	25
iw	12. the usual	4	42	10	I	1. the image	6	28	21
I	1. the image	3	42	7	ʌ~ɔ	4. the ulcer	5	28	18
ʌ~ɔ	4. the ulcer	3	42	7	iw	12. the usual	5	28	18
ə	15. the affairs	1	42	2	ə	15. the affairs	4	28	14

A5. Before highly stressed words which begin sentences.

42 Grade IV Students					28 Grade IX Students				
Vowel	Item Number in the List of Words	Actual Adding	Possible Adding	% Adding	Vowel	Item Number in the List of Words	Actual Adding	Possible Adding	%
æ	6. Aaron...	8	42	19	ɛ	2. Elsie...	4	28	14
ow	4. Oh my...	7	42	17	ə	9. Undo...	4	28	14
ə	9. Undo...	7	42	17	æ	1. Answer...	3	28	11
u	5. Up...	4	42	10	ɪ	3. Indians...	3	28	11
uw	8. Oops...	4	42	10	æ	6. Aaron...	3	28	11
æ	1. Answer...	2	42	5	u	5. Up...	2	28	7
ɪ	3. Indians...	2	42	5	uw	8. Oops...	1	28	4
ɛ	2. Elsie...	1	42	2	ow	4. Oh my...	0	28	0
iy	7. Easter...	1	42	2	iy	7. Easter...	0	28	0
	These words were at the beginning of sentences.								

A6a. After a consonant between two syntactically connected words.

42 Grade IV Students					28 Grade IX Students				
Vowel	Item Number in the List of Words	Actual Adding	Possible Adding	% Adding	Vowel	Item Number in the List of Words	Actual Adding	Possible Adding	%
ɛ	2. big igloo	5	42	12	aH	8. dark autumn	8	28	29
a	5. young otter	5	42	12	ə	4. old uncle	4	28	14
I	1. Inuit igloo	4	42	10	æ	3. red apple	3	28	11
æ	3. red apple	4	42	10	ow	13. some overtime	3	28	11
ə	4. old uncle	4	42	10	I	1. Inuit igloo	2	28	7
oy	10. ..like oysters	3	42	7	ɛ	2. big echo	2	28	7
ay	11. slob ice	3	42	7	a	5. young otter	2	28	7
iw	12. some onion	3	42	7	ər	16. black earth	2	28	7
aH	8. dark autumn	2	42	5	uw	7. it is oozing	1	28	4
iy	6. ancient Egypt	1	42	2	oy	10. ..like oysters	1	28	4
uw	7. it is oozing	1	42	2	iw	12. some onion	1	28	4
ey	9. huge airplane	1	42	2	aw	14. big outboard	1	28	4
ow	13. some overtime	1	42	2	iy	6. ancient Egypt	0	28	0
aw	14. big outboard	1	42	2	ey	9. huge airplane	0	28	0
ə	15. run along	0	42	0	ay	11. slob ice	0	28	0
ər	16. black earth	0	42	0	ə	15. run along	0	28	0

A6b. After consonant word internally.

spitoon	canteen	No one put the [h] sound
desire	result	in these words.
dissolve	disable	

A7a. After same vowel between two syntactically connected words.

42 Grade IV Students					28 Grade IX Students				
Vowel	Item Number in the List of Words	Actual Adding	Possible Adding	% Adding	Vowel	Item Number in the List of Words	Actual Adding	Possible Adding	%
aH	3. raw August	5	42	12	iy	1. happy Eden	6	28	21
iy	1. happy Eden	4	42	10	aH	3. raw August	5	28	18
ey	4. gray age	4	42	10	ey	4. gray age	5	28	18
uw	2. blue ooze	3	42	7	ay	6. dry ice	4	28	14
ay	6. dry ice	3	42	7	ow	7. blow open	4	28	14
e	8. Sir Ernest Blunt	3	42	7	aw	9. to plow out	3	28	11
aw	9. to plow out	3	42	7	e	8. Sir Edward Blunt	2	28	7
oy	5. toy oyster	1	42	2	uw	2. blue ooze	1	28	4
ow	7. blow open	1	42	2	oy	5. toy oyster	1	28	4

A7b. After <u>different</u> vowel between two syntactically connected words.

42 Grade IV Students					28 Grade IX Students				
Vowel	Item Number in the List of Words	Actual Adding	Possible Adding	% Adding	Vowel	Item Number in the List of Words	Actual Adding	Possible Adding	%
ey	11. by eight	12	42	29	æ	2. funny act	10	28	36
æ	6. raw apple	8	42	19	æ	10. destroy Art	10	28	36
æ	2. funny act	7	42	17	I	3. grew ill	9	28	32
a	4. blue ox	6	42	14	ey	11. by eight	9	28	32
ay	8. say "eye"	6	42	14	ay	8. say "eye"	8	28	29
a	16. slow ox	6	42	14	a	4. blue ox	6	28	21
I	5. saw Italy	5	42	12	I	5. saw Italy	6	28	21
æ	10. destroy Art	5	42	12	æ	6. raw apple	6	28	21
I	3. grew ill	4	42	10	ɛ	7. stray enemy	5	28	18
I	9. toy Indian	4	42	10	I	9. toy Indian	5	28	18
ɛ	1. pretty entry	3	42	7	ɛ	1. pretty entry	4	28	14
I	13. new image	3	42	7	a	16. slow ox	4	28	14
ɛ	7. stray enemy	2	42	5	æ	12. my accent	3	28	11
æ	12. my accent	2	42	5	I	13. new image	2	28	7
ʌ	14. low ulcer	2	42	5	ʌ	14. low ulcer	2	28	7
ɛ	15. high entry	1	42	2	ɛ	15. high entry	2	28	7

A7c. After vowel word-internally.

42 Grade IV Students					28 Grade IX Students				
Vowel	Item Number in the List of Words	Actual Adding	Possible Adding	% Adding	Vowel	Item Number in the List of Words	Actual Adding	Possible Adding	%
	6. creator	4	42	10		1. Montreal	3	28	11
	1. Montreal	3	42	7		2. biography	3	28	11
	2. biography	3	42	7		3. pre-empt	3	28	11
	5. reaction	2	42	5		5. reaction	2	28	7
	3. pre-empt	1	42	2		4. radiation	0	28	0
	4. radiation	0	42	0		6. creator	0	28	0
	7. triumphant	0	42	0		7. triumphant	0	28	0

A8. In words with extra (contrastive) stress in sentences.

42 Grade IV Students					28 Grade IX Students				
Vowel	Item Number in the List of Words	Actual Adding	Possible Adding	% Adding	Vowel	Item Number in the List of Words	Actual Adding	Possible Adding	%
a	6. cow...ox	13	42	31	ɛ	5. knee...elbow	17	28	61
ey	9. seven...eight	12	42	29	ey	9. seven...eight	16	28	57
ɛ	5. knee...elbow	8	42	19	a	6. cow...ox	13	28	46
u	3. banana...orange	7	42	17	iy	4. trout...eels	11	28	39
æ	2. Lennon...Andrew	6	42	14	aH	8. Tom...all	9	28	32
iy	4. trout...eels	6	42	14	ay	11. sheets...ice-bergs	9	28	32
oi	16. savings... earnings	6	42	14	ɘr	16. savings... earnings	9	28	32
aH	8. Tom...all	5	42	12	iw	12. club...union	7	28	25
ay	11. sheets... icebergs	5	42	12	aw	14. store...out-house	7	28	25
aw	14. store... outhouse	5	42	12	æ	2. Lennon...Andrew	6	28	21
ɘy	10. gas...oil	4	42	10	ɘy	10. gas...oil	4	28	14
uw	7. poured...ooze	3	42	7	u	3. banana...orange	3	28	11
iw	12. club...union	3	42	7	ow	13. closing...open	3	28	11
ow	13. closing...open	2	42	5	ɘ	15. departure... arrival	2	28	7
ʌ	1. pretty...ugly	1	42	2	ʌ	1. pretty...ugly	1	28	4
ɘ	15. departure... arrival	1	42	2	uw	7. poured...ooze	1	28	4

These sets of words were used in sentences.

"DROPPING"

D1. Before isolated words.

42 Grade IV Students					28 Grade IX Students				
Vowel	Item Number in the List of Words	Actual Dropping	Possible Dropping	%	Vowel	Item Number in the List of Words	Actual Dropping	Possible Dropping	%
a	6. hot	35	42	83	ə	5. hunt	27	28	96
iy	7. heat	34	42	81	uw	8. hoot	27	28	96
ə	5. hunt	33	42	79	ey	10. hate	27	28	96
u	4. hook	32	42	76	ow	14. hope	27	28	96
ə	16a.hello	32	42	76	aw	15. house	27	28	96
ə	16b.hurt	32	42	76	ə	16a.hello	27	28	96
ey	10. hate	31	42	74	ə	16b.hurt	27	28	96
oy	11. Hoyle	31	42	74	iy	7. heat	26	28	93
iw	13. human	31	42	74	æ	3. happy	25	28	89
aw	15. house	31	42	74	u	4. hook	25	28	89
uw	8. hoot	30	42	71	oy	11. Hoyle	25	28	89
aH	9. haul	30	42	71	ay	12. high	25	28	89
ay	12. high	30	42	71	a	6. hot	22	28	79
ow	14. hope	30	42	71	aH	9. haul	22	28	79
I	1. hill	28	42	67	I	1. hill	21	28	75
ɛ	2. hen	28	42	67	ɛ	2. hen	21	28	75
æ	3. happy	28	42	67	iw	13. human	0	28	0

D2. After the indefinite article a/an in sentences.

42 Grade IV Students					28 Grade IX Students				
Vowel	Item Number in the List of Words	Actual Dropping	Possible Dropping	%	Vowel	Item Number in the List of Words	Actual Dropping	Possible Dropping	%
aH	9. a halt	34	42	81	I	1. a hitch	19	28	68
y	11. a hoist	33	42	79	iy	7. a heel	19	28	68
iw	13. a human	33	42	79	ə	5. a honey	18	28	64
ow	14. a hole	33	42	79	aH	9. a halt	17	28	61
I	1. a hitch	32	42	76	ey	10. a hail	17	28	61
a	6. a hop	32	42	76	ow	14. a hole	17	28	61
uw	8. a hoop	32	42	76	ɛ	2. a heck	16	28	57
ey	10. a hail	32	42	76	uw	8. a hoop	16	28	57
ay	12. a high	32	42	76	oy	11. a hoist	15	28	54
ə	16. a hurry	32	42	76	a	6. a hop	14	28	50
aw	15. a howl	31	42	74	aw	15. a howl	14	28	50
ɛ	2. a heck	30	42	71	æ	3. a happy	12	28	43
u	4. a hood	30	42	71	u	4. a hood	12	28	43
ə	5. a honey	30	42	71	iw	13. a human	10	28	34
æ	3. a happy	28	42	67	ə	16. a hurry	10	28	34
iy	7. a heel	27	42	64	ay	12. a high	3	28	11
	These items were used in sentences.								

D3. Between a demonstrative ("this", "that", "these", "those") and single words.

42 Grade IV Students					28 Grade IX Students				
Vowel	Item Number in the List of Words	Actual Dropping	Possible Dropping	%	Vowel	Item Number in the List of Words	Actual Dropping	Possible Dropping	%
I	7. these heels	37	42	88	oy	11. that hoist	27	28	96
æ	3. these happenings	36	42	86	ay	12. those hides	27	28	96
ɛ	2. that hen	35	42	83	æ	3. these happenings	26	28	93
ə	5. those humps	35	42	83	u	4. those hooks	26	28	93
aH	9. this halter	35	42	83	ə	5. those humps	26	28	93
oy	11. that hoist	35	42	83	I	7. these heels	26	28	93
ay	12. those hides	35	42	83	aH	9. this halter	26	28	93
ow	14. that home	35	42	83	ey	10. that hail	26	28	93
aw	15. these houses	35	42	83	iw	13. this human	26	28	93
ə	10b. this herd	35	42	83	ə	16a. those hellos	26	28	93
u	4. those hooks	34	42	81	ə	10b. this herd	26	28	93
uw	8. that hoop	34	42	81	I	1. this hitch	25	28	89
ey	10. that hail	34	42	81	uw	8. that hoop	25	28	89
iw	13. this human	34	42	81	aw	15. these houses	25	28	89
ə	16a. those hellos	34	42	81	ow	14. that home	24	28	86
I	1. this hitch	33	42	79	a	6. that hopper	23	28	82
a	6. that hopper	33	42	79	ɛ	2. that hen	21	28	75

D4. Between the definite article "the" and single words.

42 Grade IV Students					28 Grade IX Students				
Vowel	Item Number in the List of Words	Actual Dropping	Possible Dropping	%	Vowel	Item Number in the List of Words	Actual Dropping	Possible Dropping	%
iw	13. the hugeness	36	42	86	iw	13. the hugeness	19	28	68
oy	11. the hoist	32	42	76	iy	7. the heat	14	28	50
uw	8. the hoot	31	42	74	ow	14. the hole	14	28	50
ay	12. the hide	31	42	74	uw	8. the hoot	13	28	46
iy	7. the heat	30	42	71	oy	11. the hoist	13	28	46
ey	10. the hail	30	42	71	aw	15. the howl	11	28	38
aH	9. the hall	29	42	69	ə	5. the hum	10	28	36
ow	14. the hole	29	42	69	a	6. the hock	10	28	36
ə	16. the herd	29	42	69	ey	10. the hail	10	28	36
e	5. the hum	28	42	67	e	16. the herd	10	28	36
a	6. the hock	28	42	67	I	1. the hip	9	28	32
æ	3. the ham	26	42	62	aH	9. the hall	9	28	32
aw	15. the howl	26	42	62	ay	12. the hide	9	28	32
I	1. the hip	25	42	60	u	4. the hood	8	28	29
u	4. the hood	24	42	57	æ	3. the ham	7	28	25
ɛ	2. the head	23	42	55	ɛ	2. the head	6	28	21

D5. Before highly stressed words which begin sentences.

	42 Grade IV Students				28 Grade IX Students				
Vowel	Item Number in the List of Words	Actual Dropping	Possible Dropping	%	Vowel	Item Number in the List of Words	Actual Dropping	Possible Dropping	%
iy	7. Heap...	31	42	74	iy	7. Heap...	21	28	75
ə	5. Hark...	30	42	71	ɛ	3. Help...	18	28	62
ɛ	3. Help...	29	42	69	ow	4. Hold...	18	28	62
ow	4. Hold...	29	42	69	u	8. Hook...	18	28	62
u	8. Hook...	28	42	67	ɛ	9. Health...	18	28	62
ɛ	9. Health...	28	42	67	æ	6. Harry...	16	28	57
æ	6. Harry...	27	42	64	ɛ	2. Hell...	15	28	54
æ	1. Hand...	24	42	57	æ	1. Hand...	12	28	43
ɛ	2. Hell...	24	42	57	ə	5. Hark...	12	28	43
	These words were at the beginning of sentences								

D6a. After a consonant between two syntactically connected words.

42 Grade IV Students					28 Grade IX Students				
Vowel	Item Number in the List of Words	Actual Dropping	Possible Dropping	%	Vowel	Item Number in the List of Words	Actual Dropping	Possible Dropping	%
iw	12. some huge	37	42	88	u	4. sharp hook	26	28	93
ə	15. black hurricane	37	42	88	ow	13. some host	26	28	93
uw	7. his hoop	36	42	86	ə	5. old husband	25	28	89
ey	9. huge hail	36	42	86	uw	7. his hoop	25	28	89
ow	13. some host	36	42	86	aH	8. autumn haunts	25	28	89
u	4. sharp hook	35	42	83	iw	12. some huge	25	28	89
aH	8. autumn haunts	35	42	83	aw	14. big house	25	28	89
ay	11. cab hire	35	42	83	ey	9. huge hail	24	28	86
aw	14. big house	35	42	83	ay	11. cab hire	24	28	86
æ	3. bad habit	34	42	81	ə	15. black hurricane	23	28	82
oy	10. Do you know Ike Hoyle?	34	42	81	a	6. spring hockey	22	28	79
I	1. fat hips	33	42	79	æ	3. bad habit	21	28	75
a	6. spring hockey	33	42	79	oy	10. Do you know Ike Hoyle?	21	28	75
ə	5. old husband	32	42	76	I	1. fat hips	19	28	68
ɛ	2. big hen	31	42	74	ɛ	2. big hen	15	28	54

D6b. After consonant word-internally.

42 Grade IV Students					28 Grade IX Students				
Vowel	Item Numger in the List of Words	Actual Dropping	Possible Dropping	%	Vowel	Item Number in the List of Words	Actual Dropping	Possible Dropping	%
	4. inhuman	38	42	90		3. exhale	28	28	100
	1. upheaval	37	42	88		4. inhuman	27	28	96
	5. unholy	36	42	86		6. outhouse*	26	28	93
	6. outhouse*	36	42	86		1. upheaval	22	28	79
	2. unhandy	33	42	79		2. unhandy	22	28	79
	3. exhale	30	42	71		5. unholy	20	28	71

*Here the heavier stress is on the first syllable.

D7a. After same vowel between two syntactically connected words.

42 Grade IV Students					28 Grade IX Students				
Vowel	Item Number in the List of Words	Actual Dropping	Possible Dropping	%	Vowel	Item Number in the List of Words	Actual Dropping	Possible Dropping	%
uw	2. blue hoop	35	42	83	aH	9. cow house	25	28	89
oy	5. toy hoist	35	42	83	ə	8. per herd	24	28	86
ay	6. dry hide	33	42	79	ey	4. gray haze	23	28	82
u	7. grow holy	33	42	79	oy	5. toy hoist	23	28	82
ə	8. per herd	32	42	76	u	7. grow holy	22	28	79
aH	9. cow house	32	42	76	uw	2. blue hoop	21	28	75
iy	1. dirty heap	31	42	74	ay	6. dry hide	21	28	75
ey	4. gray haze	31	42	74	a	3. raw hog	20	28	71
a	3. raw hog	29	42	69	iy	1. dirty heap	19	28	68

D7b. After <u>different</u> vowel between two syntactically connected words.

42 Grade IV Students					28 Grade IX Students				
Vowel	Item Number in the List of Words	Actual Dropping	Possible Dropping	%	Vowel	Item Number in the List of Words	Actual Dropping	Possible Dropping	%
I	9. toy hinge,	35	42	83	I	9. toy hinge	26	28	93
ɛ	1. fairly heavy	34	42	81	aw	5. free house	24	28	86
æ	2. lonely hack	34	42	81	æ	12. my hackles	23	28	82
æ	6. straw hat	34	42	81	æ	6. straw hat	22	28	79
ay	8. say "hide"	34	42	81	ɛ	7. gray hem	21	28	75
I	13. new hip	34	42	81	ay	8. say "hide"	21	28	75
aw	5. free house	33	42	79	ey	11. by hate	21	28	75
æ	12. my hackles	33	42	79	I	13. new hip	20	28	71
ɛ	15. high heaven	33	42	79	ə	14. low hull	20	28	71
a	16. slow hockey	33	42	79	ɛ	15. high heaven	20	28	71
I	3. blue hill	32	42	76	æ	10. destroy heart	18	28	64
ɛ	7. gray hem	32	42	76	a	16. slow hockey	18	28	64
æ	10. destroy heart	32	42	76	I	3. blue hill	17	28	61
ey	11. by hate	32	42	76	ɛ	1. fairly heavy	16	28	57
ə	14. low hull	32	42	76	æ	2. lonely hack	16	28	57
a	4. new hock	30	42	71	a	4. new hock	11	28	39

D7c. After vowel word-internally.

42 Grade IV Students					28 Grade IX Students				
Vowel	Item Number in the List of Words	Actual Dropping	Possible Dropping	%	Vowel	Item Number in the List of Words	Actual Dropping	Possible Dropping	%
	3. rehalve	39	42	93		1. rehearse	25	28	89
	4. rehash	38	42	90		3. rehalve	25	28	89
	5. rehire	38	42	90		4. rehash	25	28	89
	6. reheat	38	42	90		2. behead	24	28	86
	1. rehearse	37	42	88		7. rehouse	24	28	86
	7. rehouse	37	42	88		5. rehire	23	28	82
	2. behead	36	42	86		6. reheat	22	28	79

D8. In words with extra (contrastive) stress in sentences.

42 Grade IV Students					28 Grade IX Students				
Vowel	Item Number in the List of Words	Actual Dropping	Possible Dropping	%	Vowel	Item Number in the List of Words	Actual Dropping	Possible Dropping	%
ɛ	15. healthy	35	42	83	oy	10. hoisting	18	28	64
oy	10. hoisting	34	42	81	ɛ	15. healthy	18	28	64
aw	14. house	34	42	81	iw	12. human	14	28	50
u	7. hoof	33	42	79	ə	13. hold	14	28	50
a	6. hot	31	42	74	u	7. hoof	13	28	46
ey	9. hate	31	42	74	ey	9. hate	13	28	46
ə	13. hold	31	42	74	ə	16. her	12	28	43
ə	16. her	31	42	74	a	8. hall	11	28	38
æ	2. hand	30	42	71	aw	14. house	11	28	38
a	8. hall	30	42	71	oy	3. horn	10	28	36
iw	12. human	30	42	71	a	6. hot	10	28	36
ow	1. hug	29	42	69	ay	11. "hi"	9	28	32
ay	11. "hi"	29	42	69	iy	4. heel	8	28	29
ɛ	5. hell	27	42	64	ɛ	5. hell	8	28	29
oy	3. horn	27	42	64	æ	2. hand	6	28	21
iy	4. heel	24	42	57	ow	1. hug	5	28	18

COMPARISONS OF DIFFERENT AREAS OF THE INSTRUMENT

TABLE A9

ADDING BEFORE VOWELS

No. of Area	Grade	Most	2nd Most	3rd Most	3rd Least	2nd Least	Least
A1	IV	aH	oy	a	uw	iw	ɚ
	IX	oy	ɪ	ɛ	ə	uw	ɚ
A2	IV	iy	æ	ey	ɚ	ow	ə
	IX	iy	æ	ey	ow	ə	ɚ
A3	IV	ɛ	iy	ey	ɚ	aw	ə
	IX	ey	a	ɛ	iw	aw	ə
A4	IV	aw	ɛ	ay	ɪ	ʌ~ɔ	ə
	IX	ey	ɛ	ay	ʌ~ɔ	iw	ə
A5	IV	æ r~ɛr	ow	ʌ~ɔ	ɪ	ɛ	iy
	IX	ɛ	ʌ~ɔ	æ	uw	ow	iy
A6a	IV	ɪ	a	ɪ	aw	ə	ɚ
	IX	aH	ʌ~ɔ	æ	ɛr	ay	ə
A7a	IV	aH	iy	ey	aw	oy	ow
	IX	iy	aH	ey	ɚ	uw	ɔy
A7b	IV	ey	æ	æ	æ	ʌ~ɔ	ɛ
	IX	~~æ~~	æ r	ɪ	ɪ	ʌ~ɔ	ɛ
A7c	IV	ey	aH	a	ɛ	ey	ʌ~ɔ
	IX	aH	a	ɛ	ey	ey	ʌ~ɔ
A8	IV	a	ey	ɛ	ow	ʌ~ɔ	ə
	IX	ɛ	ey	a	ə	ʌ~ɔ	uw
		No R	1 R	No R	4 R	4 R	2 R
		2 PR	4 PR	1 PR	8 PR	10 PR	7 PR
		Total 8			Total 35		

R = Rounded Vowel

PR = Partially Rounded or probably rounded vowel.

TABLE A10

AREAS OF INSTRUMENT IN DESCENDING ORDER OF [h] ADDITION
(FOR 42 GRADE IV STUDENTS)

		ADDING DATA			COMPARISON WITH DROPPING	
No. of Area	Title of Instrument Area	Actual Addition	Possible Addition	% of h Addition	% of h from Table D10	Add/Drop Difference
A4	Between the definite article "the" and single words	124	672	18	32	+14
A2	After the indefinite article a/an in sentences	80	630	13	25	+12
A1	Before isolated words	82	672	12	26	+14
A7b	After different vowels between two syntactically connected words	76	672	11	26	+15
A8	In words with extra (contrastive) stress in sentences	75	672	11	32	+21
A5	Before highly stressed words which begin sentences	36	378	10	34	+24
A7a	After same vowels between two syntactically connected words	27	378	7	23	+16
A3	Between a demonstrative (this, that, these, those) and single words	39	672	6	18	+12
A6a	After a consonant between two syntactically connected words	38	672	6	18	+12
A7c	After vowel word-internally	13	294	4	11	+7
A6b	After consonant word-internally	0	252	0	17	+17

TABLE A11

AREAS OF INSTRUMENT IN DESCENDING ORDER OF [h] ADDITION
(FOR 28 GRADE IX STUDENTS)

No. of Area	Title of Instrument Area	ADDING DATA: Actual Addition	Possible Addition	% of h Addition	COMPARISON WITH DROPPING: % of h from Table D11	Add/Drop Difference
A4	Between the definite article "the" and single words	141	448	31	62	+31
A8	In words with extra (contrastive) stress in sentences	118	448	26	60	+34
A7b	After different vowels between two syntactically connected words	91	448	20	30	+10
A2	After the indefinite article a/an in sentences	54	420	13	47	+34
A3	Between a demonstrative (this, that, those, these), and single words	52	448	12	9	-3
A7a	After same vowels between two syntactically connected words	31	252	12	22	+10
A1	Before isolated words	50	448	11	16	+5
A5	Before highly stressed words which begin sentences	20	252	8	41	+33
A6a	After a consonant between two syntactically connected words	30	448	7	18	+11
A7c	After vowel word-internally	14	196	7	9	+2
A6b	After consonant word-internally	0	168	0	14	+14

TABLE D9

"DROPPING" BEFORE VOWELS

No. of Area	Grade	Most	2nd Most	3rd Most	3rd Least	2nd Least	Least
D1	IV	a	iy	ʌ~ɔ	I	ɛ	æ
	IX	ʌ~ɔ	uw	ey	I	ɛ	iw
D2	IV	aH	oy	iw	ʌ~ɑ	æ	iy
	IX	Iə	iy	ʌ~ɔ	iw	ər	ay
D3	IV	iy	æ	ɛ	ɛ	I	a
	IX	oy	ay	æ	ow	a	ɛ
D4	IV	iw	oy	uw	I	U	ɛ
	IX	iw	iy	ow	U	æ	ɛ
D5	IV	iy	ær	ɛ	ær	æ	ɛ
	IX	iy	ɛ	ow	ɛ	æ	ær
D6a	IV	iw	ər	uw	a	ʌ~ɔ	ɛ
	IX	U	ow	ʌ~ɔ	oy	I	ɛ
D6b	IV	iw	iy	ow	aw	æ	ey
	IX	ey	iw	aw	iy	æ	ow
D7a	IV	uw	oy	ay	iy	ey	a
	IX	aw	ər	ey	ay	a	iy
D7b	IV	I	ɛ	æ	ær	ey	ʌ~ɑ
	IX	I	aw	æ	I	ɛ	æ
D7c	IV	æH	æ	ay	ər	aw	ɛ
	IX	ər	æH	æ	aw	ay	iy
D8	IV	ɛ	oy	aw	ɛ	or	iy
	IX	oy	ɛ	iw	ɛ	æ	ʌ~ɔ
		2 R	2 R	5 R	2 R	1 R	1 R
		8 PR	8 PR	6 PR	8 PR	4 PR	4 PR
		Total 31			Total 20		

R = Rounded Vowel

PR = Partially Rounded or probably rounded vowel.

TABLE D10

AREAS OF INSTRUMENT IN DESCENDING ORDER OF [h] "DROPPING"
(FOR 42 GRADE IV STUDENTS)

No. of Area	Title of Instrument Area	Actual Dropping	Possible Dropping	% of Dropping	% of h sounded for Table A10)
D7c	After vowel word-internally	263	294	89	11
D6b	After consonant word-internally	210	252	83	17
D6a	After a consonant between two syntactically connected words	518	630	82	18
D3	Between a demonstrative (this, that, these, those) and single words	589	714	82	18
D7a	After same vowels between two syntactically connected words	291	378	77	23
D2	After the indefinite article a/an in sentences	501	672	75	25
D1	Before isolated words	526	714	74	26
D7b	After different vowels between two syntactically connected words	527	714	74	26
D4	Between definite article "the" and single words	456	672	68	32
D8	In words with extra (contrastive) stress in sentences	487	714	68	32
D5	Before highly stressed words which begin sentences	250	378	66	34

TABLE D11

AREAS OF INSTRUMENT IN DESCENDING ORDER OF [h] "DROPPING"
(FOR 28 GRADE IX STUDENTS)

No. of Area	Title of Instrument Area	Actual Dropping	Possible Dropping	% of Dropping	% of h sounded (for Table A11)
D3	Between a demonstrative (this, that, these, those) and single words	431	476	91	9
D7c	After vowel word-internally	178	196	91	9
D6b	After consonant word-internally	145	168	86	14
D1	Before isolated words	401	476	84	16
D6a	After a consonant between two syntactically connected words	346	420	82	18
D7a	After same vowel between two syntactically connected words	198	252	78	22
D7b	After different vowel between two syntactically connected words	314	448	70	30
D5	Before highly stressed words which begin sentences	148	252	59	41
D2	After the indefinite article a/an in sentences	239	448	53	47
D8	In words with extra (contrastive) stress in sentences	180	448	40	60
D4	Between the definite article "the" and single words	171	448	38	62

TABLE A-D12

THE ELEVEN AREAS OF THE INSTRUMENT RANKED IN DESCENDING ORDER OF [h] OCCURRENCES

Ranking by [h] Occurrence					Number and Type of Instrument Area
Total of Rankings	Add by Grade IV	Add by Gr. IX	Drop by Gr. IV	Drop by Gr. IX	
6	1	1	3	1	A4-D4 Between the definite article *the* and single words
11	5	2	2	2	A8/D8 In words with extra, contrastive stress in sentences
15	2	4	6	3	A2/D2 After the indefinite article *a/an* in sentences
16	4	3	4	5	A7b/A7b After *different* vowels between two syntactically connected words
19	6	8	1	4	A5/D5 Before highly stressed words which begin sentences
23	3	7	5	8	A1/D1 Before isolated words
26	7	6	7	6	A7a/D7a After *same* vowel between two syntactically connected words
32	8	5	8	11	A3/D3 Between a demonstrative (*this, that, these, those*) and single words
34	9	9	9	7	A6a/D6a After a consonant between two syntactically connected words
41	10	10	11	10	A7c/D7c After vowel word-internally
41	11	11	10	9	A6b/D6b After consonant word-internally

BIBLIOGRAPHY

SELECTED BIBLIOGRAPHY

1. Brook, G.L. English Dialects. London: Andre Deutsch, 1963.

2. Ellis, Alexander J. Early English Pronunciation. Early English Text Society, Part I. London: Asher & Co., 1869.

3. Hogan, Jeremiah J. An Outline of English Philosophy Chiefly for Irish Students. Dublin: The Educational Co. of Ireland, 1934.

4. Jespersen, Otto. A Modern English Grammar on Historical Principles. London: George Allen & Unwin Ltd., 1909.

5. McDavid, Raven I. and Virginia G. "/h/ Before Semi-Vowels in Eastern United States." Language, Vol. 28, No. 1, 1952.

6. Noseworthy, Ronald. A Dialect Survey of Grand Bank. Master's Thesis. Memorial University of Newfoundland, 1971.

7. Orton, Harold. Survey of English Dialects, Introduction. Leeds: E.J. Arnold & Son, Ltd., 1967.

8. Riach, W.A.D. The Aspirate and Lingua-Dental Fricative in Newfoundland Speech. Master's Thesis. University of Kansas, 1969.

(Items 1-5 and 7 were included in Dr. Riach's thesis. The author had a computer literature search made of several Data Bases and no other applicable references were found).

APPENDIX A

24 CONSONANTS -

17 VOWELS

24 CONSONANTS

MANNER	PLACE							
Stops	p b		t d		č chill ǰ Jill		k g	– Voice + Voice
Fricatives	f v	θ thigh ð thy	s z		š Aleutian **ž allusion		h	– Voice + Voice
Nasals	m		n				ŋ singer	(+ Voice)
Resonants	w		l	r	y***			(+ Voice)

* /č/ and /ǰ/ are phonetically affricates and are therefore often written [tʃ] and [dʒ], respectively.

** /š/ and /ž/ are often written with the IPA symbols /ʃ/ and /ʒ/, respectively.

*** The phonetic symbol for /y/ is usually [j] and some authors use /j/ as their phonemic symbol also. See, for example, Pyles.

17 VOWELS

Six short or lax stressed vowels

	Front	Back
High	I pit	U put
Mid	ɛ pet	ʌ–ɔ putt
Low	æ pat	a pot

One short or lax unstressed vowel

ə as in "the sofa"

Four long vowels of the y-final type

iy	bee
ey	bay
oy	boy
ay	bye, by

Four long vowels of the w-final type:

uw	boat
Iw	beaut, butte
ow	boat
aw	bout

One long vowel of the H-final type:

aH	bought

One long steady vowel of the retroflex (r-colored) type:

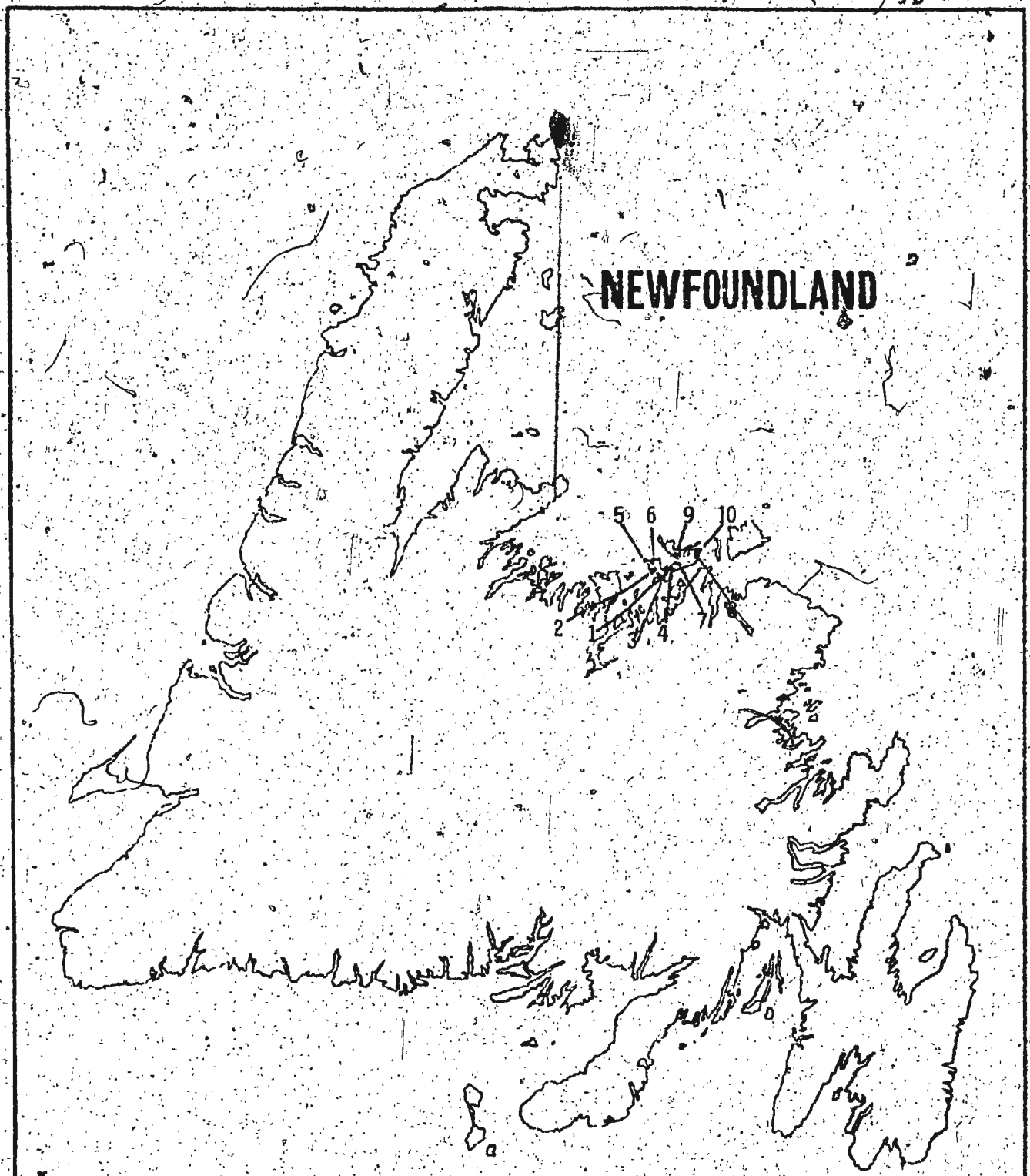
er	bird, word, fur, fir, etc.

The above symbols are based on Robert Stockwell's (1959)* revision of the well-known Trager-Smith system of vowel transcription.

*Robert P. Stockwell, "Structural Dialectology: A Proposal," American Speech, Volume 34 (1959), pp. 258-268.

APPENDIX B

Map of Newfoundland showing the general location of the ten geographical areas in Table 1



The numbers on the map indicate the general location of the ten geographical areas named in Table I.