

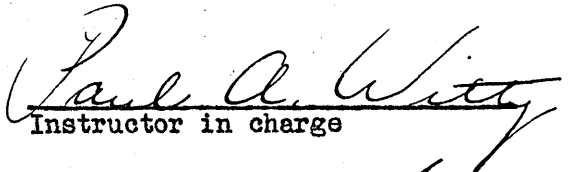
A CRITICAL STUDY OF THE TEACHER'S WORD BOOK


by

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INTRODUCTION

## INTRODUCTION

In 1921, Edward L. Thorndike wrote: "Consider these simple questions: How many English words should the ordinary boy or girl know the meanings of at the end of Grade 8? In what grades and in what connections should they be learned? If gifted and experienced teachers, supervisors, and authors of courses of study were to give answers to these questions, the answers would vary enormously. Nobody, in fact, knows the answers with even roughly approximate correctness."<sup>1</sup>

About the time the matter quoted in the preceding paragraph was published in The Teacher's College Record,<sup>1</sup> Mr. Thorndike presented the results of the study he had directed in which he and his assistants had counted four million, five hundred thousand words from forty-one different sources in order to discover which words were most frequently used; the ten thousand words so found were then published with convenient prefatory material in The Teacher's Word Book.

Eight years have passed since The Teacher's Word Book appeared, and since the above questions were asked; yet these very questions remain in a large measure still unanswered. No investigators, so far as the writer knows, have extended the study reported in The Teacher's Word Book. The book seems to

1. Thorndike, E. L. "Word Knowledge in the Elementary School." The Teacher's College Record. September, 1921.

have been accepted without question by many educators and to have been overlooked by others. No precise limits have been set for using the book. No improvements have been suggested by other persons interested in similar problems. Therefore, because the questions presented by Mr. Thorndike are of great importance, this thesis has been attempted.

Starting first with the idea that The Teacher's Word Book could be used to give an index of difficulty to reading material, the writer, in conjunction with other students of the University of Kansas, attempted so to use it. The results were not encouraging, and the reason was sought. Among other things it was noticed that each of the words of the list frequently had several distinct meanings, and that these meanings varied almost as much in the frequency of their usage as would the same number of synonyms for the word.

Inquiry into this problem led to the preparation of a list of the first 1000 words of The Teacher's Word Book with their meanings, clipped from Webster's Secondary School Dictionary. These 1000 words varied in the number of distinctly different meanings from one to forty. Because it appeared that little could be ascertained without detailed study of these various meanings, the writer planned a subsidiary study to ascertain the reliability of The Teacher's Word Book.

In planning this study it was reasoned that if The Teacher's Word Book actually listed ten thousand words in the order of their frequency in literature (a thing which, superficially, it appeared to do) the vocabulary usage of various

writers could be ascertained by analysis of word usage in representative books. Especially did it seem likely that stories appearing in grade-school readers could be given an index of difficulty; and with this idea, a word-by-word classification of the meanings and uses of the words appearing within the first 125 pages of a second reader was undertaken.

As the study progressed it became increasingly evident that no one person could prove, in a year's time, that the different meanings in which words were used varied as much in their frequency of appearance as did the words themselves; for the working out of such proof would be a monumental task. It would require the construction of a colossal work -- a combination word book and dictionary; to prepare it one would need the help of a large staff of efficient workers.

Whether The Teacher's Word Book, or any other tabulation, can be made to furnish the answers to the questions raised by Mr. Thorndike is still a matter for speculation. The Teacher's Word Book has been a very important contribution toward the solution of these problems. Nevertheless, it is the limitations of the book, discovered in utilizing it in research, that will be the most important part of the information presented on the following pages.

Hence the first part of the study points out certain outstanding deficiencies of The Teacher's Word Book. These were ascertained by analyzing 125 pages of the Buswell-Wheeler Second Grade Reader. Part II of this thesis will discuss in detail the limitations encountered by the writer in his attempt to assign

word values (index numbers) to the words in the Buswell-Wheeler reader and to use the Thorndike Word Book in research.



**PART ONE**

**SUBSIDIARY STUDY**

## PART ONE

### SUBSIDIARY STUDY

In the subsidiary study the first thing undertaken was the construction of a list of the 1000 most frequently used words with their meanings. The words were taken from The Teacher's Word Book<sup>1</sup> and the meanings were copied from Webster's Collegiate Dictionary.

1. The lists given on pages 127 to 134 of The Teacher's Word Book were found to be inaccurate, as a comparison of the index numbers showed. (Index numbers: those appearing with the words on pages 1 to 126, inclusive.) The entire list was checked over. All words having an index number of 49 to 74 in The Teacher's Word Book were included in the second 500 of the first 1000; all having an index number of 75 or more were included in the first 500. There was a total of 1007 such words 501 in the first 500 rank, and 505 in the second 500 rank.

The following inaccuracies were discovered in checking over the first 1000 words, pages 127 to 129 of The Teacher's Word Book:

- became (48 2 a) should be omitted, and
- become (88 1 a4) should be inserted in the first 500;
- John (77 1 a5) should be inserted in the first 500;
- lie (74 1 b) should be omitted from the first 500 as it already appears in the second 500.
- took (79 1 a5) should be inserted in list of the first 500 and omitted from the list of the second 500.
- Other words such as add (75 a1), beautiful (75 a1), and drop (75 a1) are nearer the border line between the first and second five hundreds, at least according to their index numbers;
- chain (49 1 b) should be inserted in the second 500;
- enjoy (8) should be omitted from the second 500;
- exercise (51 1 b) should be inserted in the second 500;
- fool (49 1 b) should be inserted in the second 500;
- merry (49 1 b) should be inserted in the second 500;
- mighty (49 1 b) should be inserted in the second 500;
- ought (49 1 b) should be inserted in the second 500;
- past (75 1 b) should be inserted in the second 500;
- return (68 1 b) should be inserted in the second 500.

## The list of 1000 words follows:

a	baby	bottom	chief	dance
able	back	bow	child	dare
about	bad	box	children	dark
above	bag	boy	choose	date
account	ball	branch	Christmas	daughter
across	band	brave	church	day
act	bank	bread	circle	dead
add	basket	break	city	deal
afraid	battle	breakfast	class	dear
after	bay	bridge	clean	death
afternoon	be	bright	clear	decide
again	bear	bring	clock	deep
against	beast	broad	close	delight
age	beautiful	broken	cloth	demand
ago	beat	brook	clothe	desire
air	beauty	brother	clothes	destroy
all	because	brought	cloud	did
allow	become	brown	coal	die
almost	bed	build	coast	difference
alone	bee	building	coat	different
along	been	built	cold	dinner
already	before	burn	color	direct
also	began	business	come	discover
although	begin	busy	coming	distance
always	behind	but	command	divide
am	being	butter	common	do
American	believe	buy	company	doctor
among	bell	by	complete	does
amount	belong	cake	condition	dog
an	beside	call	contain	done
and	best	came	continue	don't
animal	better	can	cook	door
another	between	cannot	cool	double
answer	big	cap	corn	doubt
any	bill	captain	corner	down
anything	bird	car	cost	draw
appear	bit	care	could	dream
apple	black	careful	count	dress
are	bless	carry	country	drink
arm	blind	case	course	drive
army	blood	catch	court	drop
around	blow	cause	cover	dry
arrive	blue	cent	cow	drying
art	board	center	cried	dust
article	boat	certain	cross	duty
as	body	chain	crowd	each
ask	bone	chair	crown	ear
at	book	chance	cry	early
attend	born	change	cup	earth
away	both	charge	cut	east

easy	field	general	heart	its
eat	fight	gentle	heat	John
edge	figure	gentleman	heaven	join
egg	fill	get	heavy	journey
eight	find	gift	height	joy
either	fine	girl	held	judge
else	finger	give	help	jump
end	finish	given	her	just
enemy	fire	glad	here	keep
England	firm	glass	herself	kept
English	first	go	hide	kill
enough	fish	god	high	kind
enter	fit	going	hill	king
entire	five	gold	him	kiss
equal	fix	golden	himself	knee
escape	floor	gone	his	knew
even	flow	good	history	know
evening	flower	got	hold	known
ever	fly	government	hole	labor
every	follow	grace	home	lady
everything	following	grain	honor	laid
except	food	grant	hope	lake
exercise	fool	grass	horse	land
expect	foot	grave	hot	large
express	for	gray	hour	last
extend	force	great	house	late
eye	forest	green	how	laugh
face	forget	grew	however	law
fact	form	ground	hundred	lay
fair	former	grow	hunt	lead
fall	forth	guard	hurry	learn
family	forward	guess	hurt	least
famous	found	guide	husband	leave
fancy	four	had	I	led
far	fourth	hair	ice	left
farm	France	half	if	leg
farmer	free	hall	ill	length
fast	French	hand	important	less
fat	fresh	hang	in	lesson
father	friend	happen	inch	let
favor	from	happy	increase	letter
fear	front	hard	indeed	lie
feed	fruit	has	Indian	life
feel	full	hat	instead	lift
feet	gain	have	interest	light
fell	game	he	into	like
fellow	garden	head	iron	line
felt	gate	health	is	lion
fence	gather	hear	island	lip
few	gave	heard	it	list

listen	more	ocean	point	right
little	morning	of	poor	ring
live	most	off	possible	rise
load	mother	offer	post	river
long	mount	office	pound	road
look	mountain	officer	power	rock
lord	mouth	often	practice	roll
lose	move	oh	prepare	roof
loss	Mr.	old	present	room
lost	Mrs.	on	press	rose
lot	much	once	pretty	round
loud	music	one	price	row
love	must	only	prince	rule
low	my	open	promise	run
lower	myself	or	proper	rush
made	name	order	proud	sad
mail	narrow	other	prove	safe
make	nation	ought	public	said
man	natural	our	pull	sail
manner	nature	out	pure	salt
many	near	outside	purpose	same
march	necessary	over	put	sand
mark	neck	own	quarter	sat
market	need	page	queen	save
master	neighbor	pain	question	saw
matter	neither	paint	quick	say
may	nest	pair	quiet	school
me	never	paper	quite	sea
mean	new	part	race	season
measure	New York	party	rain	seat
meat	next	pass	raise	second
meet	nice	past	ran	see
member	night	path	rapid	seed
men	nine	pay	rather	seek
merry	no	peace	reach	seem
met	noise	pen	read	seen
middle	none	people	ready	seize
might	noon	perfect	real	self
mighty	nor	perhaps	reason	sell
mile	north	person	receive	send
milk	nose	pick	red	sent
mill	not	picture	remain	separate
mind	note	piece	remember	serve
mine	nothing	place	reply	service
minute	notice	plain	report	set
miss	now	plan	require	settle
moment	number	plant	rest	seven
money	O	play	return	several
month	oak	pleasant	rich	shade
moon	object	please	ride	shake

shall	sound	talk	trade	went
shape	south	tall	train	were
she	space	taste	travel	what
sheep	speak	teach	tree	west
shine	spend	teacher	trip	wheat
ship	spirit	tear	trouble	wheel
shoe	spoke	tell	true	when
shop	spot	ten	trust	where
shore	spread	than	truth	whether
short	spring	thank	try	which
should	square	that	turn	while
shoulder	stand	the	twelve	white
shout	star	thee	twenty	who
show	start	their	two	whole
shut	state	them	uncle	whom
sick	station	themselves	under	whose
side	stay	then	understand	why
sight	step	there	unite	wide
sign	stick	therefore	until	wife
silk	still	these	up	wild
silver	stock	they	upon	will
simple	stone	thick	us	win
since	stood	thin	use	wind
sing	stop	thing	usual	window
single	store	think	valley	wing
sir	storm	third	value	winter
sister	story	this	very	wise
sit	straight	those	view	wish
six	strange	thou	village	with
size	stream	though	visit	within
skin	street	thought	voice	without
sky	strength	thousand	wait	woman
sleep	strike	three	walk	wonder
slow	strong	through	wall	wonderful
small	study	throw	want	wood
smile	subject	thus	war	word
smoke	such	tie	warm	work
snow	sudden	till	was	world
so	suffer	time	wash	worth
soft	sugar	tire	waste	would
soil	suit	to	watch	write
sold	summer	today	water	wrong
soldier	sun	told	wave	yard
some	supply	tomorrow	way	year
something	suppose	tongue	we	yellow
sometime	sure	too	weak	yes
son	surprise	took	wear	yesterday
song	sweet	top	weather	yet
soon	table	touch	week	you
sort	tail	toward	weight	young
soul	take	town	well	your

The several meanings of each of the 1000 words were copied from Webster's Collegiate Dictionary; space was left up on a tabulation sheet for counting of the frequency of the appearance of each meaning for each word in the Buswell-Wheeler Reader. A system of tallying similar to that used in Kansas for the counting of ballots was followed. If a given meaning occurred but once, that meaning would be followed by a single tally, "/"; if a meaning occurred six times in the context of a given bit of printed matter, that meaning would have accumulated six tallies, indicated by "|||||/".

One by one each word of the first 125 pages of the Buswell-Wheeler Second Reader was studied and its meanings were tabulated. Where the dictionary furnished no meaning closely approximating that given the word in the reader, a new meaning was written in and an extra count assigned. Such idiomatic usages were tabulated separately.

Immediately following is a sample of the dictionary list of meanings. The numeral indicating the number of times the meaning appeared was originally represented by tallies. Only the first thirteen words of the one thousand are included here. This presentation exemplifies clearly the method followed in tallying the meanings of each of the words in the first 125 pages of the reader.

a (ā) 1. The first letter of the English alphabet. (Not named as such. Tallies 0). 2. As a symbol, used to denote or indicate: a, First in order or class (Tallies 0); b, Music The sixth tone in the model major scale (that of C), or the first

relative minor scale. Also, a key giving this tone, or a symbol for it. (Tallies 0).

A or a, n.; pl. A's, aes, or as ( $\bar{a}s$ ). The letter A, a, or its sound. (Tallies 0).

a, ( $\acute{a}$ ) v.t. Corruption of have. Obs. or Dial. (Tallies 0).

a (unstressed,  $\grave{a}$ ; emphatic  $\bar{a}$ ) adj., or (as usually called) the indefinite article. 1. The shortened form of an, signifying, but less emphatic than, one or any, and commonly used before words beginning with a consonant sound. (Tallies 241). 2. In each; to or for each; as "a dollar a yard." (Tallies 0).

a ( $\acute{a}$ ), prep. (AS of off, from) of. Obs. (Tallies 0).

a ( $\acute{a}$ ), prep., a-, a- ( $\acute{a}$ ) prefix. (AS. an, on.) On; in; at; as in afloat, afield, afire, asleep, "a Monday," "thrice a year," "a-hunting." (Tallies 2).

a-, (Gr.  $\alpha\nu, \alpha$ , not,  $\alpha$  being before consonants) A prefix, appearing as an- before vowels or the letter h, denoting not, without, un-, as in abyss, asexual, anhydrous. (Tallies 0).

a-, A prefix equiv. to 1<sup>st</sup> A, prep., denoting off, from, of; as in adown, athirst, afresh, etc. (Tallies 0).

a-, A form of Ab., (Tallies 0).

-able ( $\acute{a}-b'l$ ), -ib-le ( $\acute{i}-b'l$ ), or ble. (F., fr. L. -abilis, -ibilis, -bilis.) A suffix used to form adjectives, and meaning: 1. capable of being, fit to be, worthy to be (acted upon in a certain way); ... lovable ...etc. (Tallies 0). 2. Able to, capable of causing, productive of, characterized by; also, inclining to, liable to, subject to. (Tallies 0).



a'ble (ā'b'l), a.; a'bler (ā'blēr); a'blest (ā'blēst). (OF., fr. L. habilis, easily held or managed, apt, fr. habere to have, hold) 1. Having sufficient power, force, skill, etc.; competent; capable. (Tallies 1). 2. Having intellectual qualifications, or strong mental powers; talented, clever. (Tallies 0).

a-bout' (ā-bout'), adv. (AS. abūtan, onbūtan; on + būtan, fr. be by + ūtan, outward, ūt, out,) 1. On all sides; here and there; around; as, to look about; wandering about. (Tallies 3). 2. In circuit; around the outside; as, at the waist he is one yard about. (Tallies 0). 3. Nearly; approximately; as, about 400. (Tallies 0). 4. To a reversed position; half around; as, to face about. (Tallies 0). 5. In rotation; as, turn about is fair play. (Tallies 0).

--prep. 1. Around; on every side of; as, the air is about us. (Tallies 0). 2. In the immediate neighborhood of; near; by or on (one's person); as, he stayed about the house for our protection; have you a knife about you? (Tallies 1). 3. Over or upon different parts of; here and there; in; as, to travel about the country; stones scattered about a field. (Tallies 0). 4. Near; not far from; as, about this time yesterday. (Tallies 0). 5. In concern with; engaged in; as, he went about his business. (Tallies 4). 6. Before a verbal noun or an infinitive: On the point or verge of; in the act of; as, he was about to leap. (Tallies 0). 7. Concerning; with regard to; in connection with; touching; as, to talk about politics. (Tallies 13).

a-bove' (a-buv'), adv. (AS. on, on + be, by, ufan, upward.) 1. In a place above something; overhead. (Tallies 2). 2. Earlier in order; as, that was said above. (Tallies 0). 3. Higher in rank or power. (Tallies 0).

--prep. 1. In or to a higher place than; higher than; over; --opposed to below or beneath. (Tallies 0). 2. Fig., higher than; superior to; surpassing; beyond; as, above criticism, above revenge. (Tallies 0). 3. Surpassing in number or quantity; more than. (Tallies 0).

--a. Being above; situated, placed, said, written, mentioned, or the like, above. (Tallies 0).

--n. That which is above. (Tallies 0).

ac-count' (a-kount'), v.t. (From OF., fr. a (L.ad) + conter, to count, L. computare.) 1. To credit (to) in an account; assign; --used with to. Rare. 2. To value; estimate; hold; judge; deem.

--v.i. 1. To render, or state the terms of, an account, as of money expended. 2. To answer; --used with for; as, we must account for our opportunities. 3. To give a satisfactory reason; explain; --used with for.

--n. 1. A reckoning; computation. 2. A statement of business dealings subjected to a reckoning or review; hence, a right or claim the items of which make up such a statement. 3. A statement in general of reasons explanatory of some event; hence, reason, ground, motive, or the like; as, on no account. 4. A statement of facts; narrative; report. 5. Estimation; valuation; judgment; as, you stand high in his account. 6. Importance; worth; advantage; profit. (Tallies: This word did not occur within the first 125 pages of "The Silent Reading Hour.")

a-cross' (ä-krös'), adv. (a- on, in + cross.) From side to side; crosswise. (Tallies 0).

--prep. From side to side of; athwart; on the other side of (Tallies 1); over. (Tallies 1). (These meanings were not separated except within the list. In tabulations such as those on pages 23 to 29 they would not be distinguished.)

act (äkt), n. (F. acte, L. actus, and actum, fr. agere, to drive, do.) 1. That which is done or doing; exercise of power; effect of exerted power; performance; deed. (Tallies 0). 2. The result of public deliberation; decision of a legislative body, court, etc.; (Tallies 0); a decree, edict, law, judgment, resolve, or award. (Tallies 0). 3. A formal writing stating that something has been done; as, an act of sale. (Tallies 0). 4. A performance of part of a play; one of the principal divisions of a dramatic work. (Tallies 0). 5. A thesis maintained in public, as in some English Universities, as by a candidate for a degree. (Tallies 0). 6. Process of doing; action; as, to be taken in the act. (Tallies 0). 7. pl. (cap.) Short for Acts of the Apostles, the title of the fifth book of the New Testament. (Tallies 0).

--act of God, Law, an inevitable accident. (Tallies 0).

--v.t. 1. To actuate. Obs. (Tallies 0). 2. To perform (a play or the like) as an actor. 3. To assume the office or character of; play; personate; as, to act the hero, Hamlet, etc. (Tallies 0). 4. To feign or counterfeit; simulate. (Tallies 0).

--v.i. 1. To exert or put forth energy or power; perform functions; do something; specif., to carry into effect a determination of

the will; as, I shall act at once if he fails. (Tallies 0).

2. To have effect; exert influence; as, most acids do not act on glass. (Tallies 0). 3. To behave; bear or depart one's self. (Tallies 1). 4. To perform on the stage; play a part; also, to admit of being performed or acted. (Tallies 0).

add (ăd), v. t. (L. addere; ad + dare, to give, put.) 1. To give (to); bestow (on); as, "The Lord shall add to me another son." 2. To join (one thing to another) or unite (several things) so as to increase in number, augment in quantity, or aggregate into one; Math., to unite in one sum or quantity. Hence; to sum up; put together mentally. 3. To append, as a statement; say further. --v. i. To make addition. (Tallies; this word did not appear within the first 125 pages of "The Silent Reading Hour.")

a-fraid' (a-frăd'), p. a. (Old p. p. of affray.) Impressed with fear or apprehension. ...Afraid implies a state of fear. ... (Tallies 2); in fear, apprehensive. (One meaning listed.)

af'ter (ăf'tēr), adv. and conj. (AS. Aefter.) Subsequently in time or place; behind; afterwards; later than. (Tallies 4).

--prep. 1. Behind in place; --often with the same noun preceding and following to denote repetition; as, day after day. (Tallies 4). 2. Following the course of; in search or pursuit of; hence with a view to; concerning; in respect of; as he went after a book; to ask after a friend. (Tallies 2). 3. Later in time; subsequent to. (Tallies 0). 4. Subsequent to and in view of; as, after what I said, why did you go? (Tallies 0). 5. Below in rank. (Tallies 0). 6. In imitation of; after the manner or appearance of; as, he takes after his father. (Tallies 0).

7. According to; in accordance with; as, he acted after his kind. ...After implies movement.... (Tallies 0).

--a. (AS. aeftera.) 1. Next; later in time; subsequent. (Tallies 1). 2. Hinder; nearer the rear. (Tallies 0).

aft'er-noon (nōon'), n. The part of the day between noon and evening. (This word did not occur within the first 125 pages of "The Silent Reading Hour.")

a-gain' (á-gĕn', also, esp. Brit. and rhetorical, á-gĕn'), adv.

(AS. ongegn, ongean, against, again; on gean, against.) 1. In return; back; as, bring us word again. (Tallies 1). 2. Another time; anew; as, we shall live again. (Tallies 6). 3. Once repeated, as in quantity; as, as large again; repeated in another place; as, you will not find his like again. (Tallies 0). 4. On the other hand. (Tallies 0). 5. Moreover; besides; further; as, again, it may be unwise to go.

--again and again, more than once; often; repeatedly. (Tallies 0).

(The meaning of again in the above phrase is counted as a separate dictionary meaning in the tabulations on page 23.)

a-against' (á-gĕnst', also, esp. Brit. and rhetorical, á-gĕnst'),

prep. (AS. ongegn, ongeanes.) 1. Abreast of; opposite to; facing; toward. (Tallies 0). 2. From an opposite or different direction and so as to strike or touch; in contact with (Tallies 1); upon; as hail beats against the roof. 3. In opposition to; counter to; hence adverse to; as, against reason; against law. (Tallies 0). 4. By or before the time that; in preparation for; as, storing up food against the winter. Archaic. (Tallies 0).

age (āj), n. (fr. OF., fr. L. aetas, for aevitas, fr. aevum, age.)

1. That part of the duration of a being or a thing between its beginning and any given time; as, his age is now ten years. 2. The whole duration of a being; lifetime; as, the age of the dog is from 10 to 15 years. 3. The time of life at which some particular qualification, power, or capacity arises or vests; as to be of school age. 4. Specif.: Mature age; full age, or majority, which at the common law is fixed at 21 years, or in some States at 18 years for women; -- used with of; as, to come of age; to be of age. 5. One of the stages of life; as the age of infancy; specif., old age. 6. A particular period of time, esp. with reference to civilization or the earth's history, as, the stone age, the bronze age, the golden age, the coal age, etc. 7. The people who live at a particular period; hence a generation. 8. A century. 9. A long time, (indefinitely). Colloq. 10. In poker, the right belonging to the player to the left of the dealer, under certain conditions, to have the last say; the player in this position.

--v.i. and t.; aged (ajd); ag'ing, age'ing (aj'ing). To grow or make aged; become or make old; mature.

--age (āj). (F. -age, fr. L. -aticum.) A suffix used to form nouns denoting; a Something in the relationship of appurtenance, function, or the like, and esp. the collection, aggregate, or sum total of things in, or arising from, such relationship; .....c State, condition, rank, dignity, or the like; as in baronage, etc.

a-go' (ä-gō'), a. & adv. (Old p.p., deriv. of AS. agan, to pass away; a + gan, to go.) Past; gone by. (Tallies: adv-- 2; a-- 0).

air (âr), n. (F. air, L. aër, fr. Gr. ἀήρ, air, mist.) 1. The invisible, odorless, and tasteless mixture of gases, chiefly nitrogen and oxygen, surrounding the earth; the atmosphere. (Tallies 1). 2. Something unsubstantial, light, or volatile. (Tallies 0). 3. That which surrounds and influences; as, there was an air of distress. (Tallies 0). 4. Air in motion; gentle wind; fig., breath; as, there is too much air here; to feel the air from a door. (Tallies 0). 5. Utterance abroad; publicity; vent; as, to give a thing air. (Tallies 0). 6. Music. A melody; tune; aria. (Tallies 0). 7. Outward appearance; semblance; manner; style; as, this has the air of a secret. (Tallies 0). 8. Bearing, attitude, or action; as, a lofty air; his air showed it. (Tallies 0). 9. An artificial or affected manner; as, to give one's self airs. (Tallies 0).

--v.t. 1. To expose to the air, as for cooling; ventilate. (Tallies 0). 2. To expose for public notice; display. (Tallies 0).

--n. NOT LISTED IN DICTIONARY. "Air" thought of as a measure of space relative to the ground, as, page 62, line 10 of the Buswell-Wheeler second reader: "The pony's head was always high in the air..." or page 80, line 20, "He threw the paper, and it went through the air in a big curve and fell, right on the doorstep." (Tallies 3).

all (ôl), a. (AS. eal, pl. ealle). 1. The whole quantity (4); extent (6); duration (9); amount (5); quality (1); or degree of (0);

the whole, collectively (21) or distributively (4); any; whatever; every (0). (Tallies for meaning one as a unit: 25). 2. Only; alone; nothing but; as, it was all profit, and no loss. (0).

--adv. Wholly; entirely; quite; very. (Tallies 18).

--n. The whole; totality; hence, everything, or every person. (14).

--all but, almost; nearly. (Tallies 0).

--all in all, every thing; also --(adverbially) wholly; altogether. (0).

--all in the wind. a Neut. With the head to the wind and all the sails flapping or shivering. b In a flurry; confused and uncertain as to what to do. (Tallies 0).

--all the same, nevertheless. (Tallies 0).

--at all, in any way or respect; (Tallies 0); in the least degree or to the least extent (Tallies 4); under any circumstances (Tallies 0) --used chiefly in negative interrogative sentences, for emphasis.

In a way similar to the analysis given above all of the one thousand, most frequently used words (according to The Teacher's Word Book) were listed with their meanings. In this list, the frequency of each meaning was carefully set down for each word appearing in the first thirteen stories and the poems contained in the Buswell-Wheeler second reader.

Only those meanings which the dictionary distinguished by a letter or numeral in bold faced type were counted, except where the word appeared in a phrase which the dictionary listed as a distinguishable meaning; in such a case that meaning was counted a



separate one.

Careful account was made of parts of speech, of contractions, of plurals, of nouns, of tenses of verbs, of compound words, etc. Because an account of the method may be interesting and valuable to students of research, many of the details are included herein.

Upon a typewritten copy of the 125 pages of the second reader the following method of marking progress during the checking was necessary.

As the writer tabulated the meanings of the words he also checked the frequency value of each word just above it, as illustrated in the following quotation, a copy of page one of the Buswell-Wheeler second reader.

"VALENTINE'S DAY

2 1 1 b0 1 2 1  
"Each day the postman came to

n0 - 2 1 4 / 1 1  
Betty's house with letters, and there

1 4 / 1 2 1 3  
were letters for Father and Mother

1 1 4 4 1 1 4 5  
and her big brother and her big sister,

1 1 1 1 4 / 1 n0  
but there were no letters for Betty.

1 3 3 3 1 b0 1  
"One morning she saw the postman

1 1 4 1 1 Ib 1 4 /  
on the street with his bag of letters,

1 1 4 1 1 3 1 3 1  
and she went to the door to meet him.

Ib b0 1 3 2 2  
"Mr. Postman," she said, "why

Ib 1 2 1 4 /  
don't I get any letters?"

1 1 2 4 1 4  
"Do you ever write any?" asked

1 b0 1  
the postman.

1 2 n0 1 Ib  
"No," said Betty, "I don't

1 1 1 4 4 /  
know how to write letters."

Explanation:

Above each word is a numeral or a letter indicating as follows:

1, 2, 3, 4, or 5, appearing above a word signifies that the word is listed in The Teacher's Word Book as in the 1st, 2nd, 3rd, 4th, or 5th hundred of the first thousand words.

"b" indicates that the word is in the second five hundred of the first thousand.

"n0" indicates that the word is outside the first thousand.

"n0" indicates a name outside the list.

"b0" indicates a special category.

The purpose of marking the words in the manner described on the previous page was to show progress and to indicate the difficulty of the various stories (based upon a comparison of the word meanings used as well as upon the frequency according to The Teacher's Word Book.) No reliable system for accomplishing this latter aim was worked out. The amount of material checked was insufficient, as previously explained; therefore, only an inchoate effort was made in this direction.

To show the significance of the facts discovered in making the tabulations, the first one hundred words, all of which occurred at least once in the reader, are next listed:

Frequency of use in the reader is placed in the first column to the right of the list of words;

dictionary categories, listed, and appearing in the reader, are placed in the next two columns, respectively;

odd idioms, not readily tabulated with the dictionary meanings, are in the next column; and,

parts of speech, listed in the dictionary, and appearing in the reader, make up the last two columns of numbers, respectively.

In giving the most-frequently-appearing meaning with each of the words, the writer does not infer that such meaning is actually the most important one which the word has. In view of the very limited number of meanings tabulated such an inference would be unjustifiable.

Words of the lst 100	Frequency of use in R.	Dictionary Categories		Odd Uses in R.	Parts of Speech		Most frequent meaning or use briefly given
		List- ed	In R.		List- ed	In R.	
a	247	10	3	2	5	3	(Indefinite article.)
about	21	12	5		2	2	(prep.) Concerning.
after	20	10	5		4	3	(prep.) Later in time.
again	7	6	2		1	1	(adv.) Another time.
against	1	4	1		1	1	(prep.) In contact with, upon.
all	74	9	6	2	3	2	(a.) The whole collec- tively.
an	8	9	2		3	2	(Indefinite article.)
and	446	3	2	1	1	1	(conj.) Of addition and connection.
any	16	3	3	2	2	2	(a.) One, some, in- definitely.
are	34	7	2	4	2	1	(v.) As a copula with pred. n. or pred. a.
as	49	15	9	3	4	3	In "as .. as" phrases.
at	60	6	5	4	1	1	(prep.) Position, end or object directed to- ward.
be	37	12	7	1	2	1	(v.) As copula with pred. a. or pred. n.
been	12	1	1	3	1	1	To exist relative to place, condition, etc.
before	12	13	6		3	3	(conj.) Previous to the time when.
but	81	6	4	1	2	2	(conj.) However.

Words of the lst 100	Frequency of use in R.	Dictionary Categories		Odd Uses in R.	Parts of Speech		Most frequent meaning or use briefly given
		List- ed	In R.		List- ed	In R.	
by	25	16	8	3	5	2	(adv.) Near in pass- ing.
can	26	5	1	1	3	1	(v.) To be able.
come	26	12	4	2	1	1	(v.) To approach.
day	52	8	3	6	1	1	(n.) The time of light between sun-up and sun-down.
do(ing)	80	18	10	5	2	1	(v.) To perform as an action.
every	14	2	1		2	1	(a.) Each (one) with- out exception.
for	74	18	8	4	3	2	(prep.) As in "Letters for Betty."
from	18	1	1	1	1	1	(prep.) Away from proximity to--, etc.
go	32	32	6	1	2	1	(v.) To pass from point to point.
good.	31	26	8	1	3	2	(a.) Sufficient or satisfactory.
great	15	20	5		2	1	(a.) Considerable in degree, etc.
had	72	16	8	2	1	1	(as the past perfect auxiliary verb.)
have	53	14	8	3	1	1	(v.) To hold in poss- ession or control.
he	210	4	1	2	2	1	(pron.) The man or male previously designated.
her	70	2	1		1	1	(pron.) Objective case of she.
here	11	6	4	1	1	1	(adv.) In this place --opposed to there.

Words of the 1st 100	Frequency of use in R.	Dictionary Categories		Odd Uses in R.	Parts of Speech		Most frequent meaning or use briefly given
		List- ed	In R.		List- ed	In R.	
him	65	1	1		1	1	(pron.) Objective case of he.
his	103	2	2	1	1	1	(adj.) As in "It was his book."
how	31	8	2	3	2	2	(adv.) In what manner or way; & to what extent.*
if	30	3	2	1	2	1	(conj.) In case that, granting that, etc.
in	135	13	5	4	5	2	(prep.) Indicating inclusion in space.
into	26	2	1	3	1	1	(prep.) To the inside of; within.
is	106	6	2	6	1	1	(v.) As a copulative v. with pred. n. and a.
it	140	7	5	4	1	1	(pron.) As a substitute for any neuter n., etc.
know	38	9	6		1	1	(v.) To have or acquire information about.
like	39	15	5		5	3	(v.) To have a liking for; to enjoy.
little	95	15	4		3	2	(a.) Small in size or extent; diminutive.
long	21	16	3	1	5	2	(adj.) Of considerable extent in time.
make	22	54	5		2	1	(v.) To frame, fashion, prepare, etc.
man	93	16	1	3	2	1	(n.) An adult male person.
many	13	2	2		2	2	(a.) Consisting of a great number, etc.
me	27	1	1	2	1	1	(pron.) The objective case of I.

\* The two meanings appeared an equal number of times.

Words of the 1st 100	Frequency of use in R.	Dictionary Categories		Odd Uses in R.	Parts of Speech		Most frequent meaning or use briefly given
		List- ed	In R.		List- ed	In R.	
more	11	6	5		3	3	(adv.) Further, moreover, besides.
much	22	7	3		3	3	(a.) Great in quantity, extent, etc.
my	43	1	1	1	1	2	(Attr. pron.) To denote possession, ownership, etc.
new	5	14	4		2	1	(a.) Other than the former or old; fresh.
no	27	8	3		3	2	(adv.) Not any; not at all, as "he is no worse."
not	109	1	1		1	1	(adv.) Expressing negation.
now	24	9	5	1	3	2	(adv.) At the present time, at this moment.
of	129	11	6	2	1	1	(prep.) Indicating, composition, description.
old	11	37	4		2	1	(a.) Not young, advanced far in years.
on	95	19	10	5	3	2	(prep.) Over and in contact with.
one	54	13	10	1	4	3	(a.) Being a single unit, thing, or being.
only	10	5	1		3	1	(adv.) Solely, merely.
or	10	5	1		6	1	(conj.) Used to mark an alternative.
other	19	9	4		4	2	(a.) The remaining; that which remains of two.
our	9	3	2		2	2	(poss. Adj.) Belonging to us, etc.
out	40	26	7	3	7	4	(adv.) Outside of or away from within a space.

Words of the lst 100	Frequency of use in R.	Dictionary Categories List- ed	Odd		Parts of		Most frequent Meaning or use briefly given
			In R.	in R.	List- ed	In R.	
over	10	27	3	3	3	2	(adv.) At an end.
place	6	21	3	2	2	1	(n.) Region; locality.
see	47	17	6	2	2	1	(v.) To perceive with the eye, behold, etc.
so	49	12	7	5	3	2	(adv.) As in "It looked so pretty that.."
some	27	8	3	1	2	2	(a.) Being a certain indef. portion or number.
such	7	6	3	1	2	1	(a.) As in "Such a boy."
take	17	70	3	3	2	1	(v.) As in "To take care;" & "--to remove, etc." *
than	7	1	1		1	1	(conj.) To introduce 2nd member of a com- parison.
that	136	3	5	2	4	3	(conj.) Introducing purpose clauses, n. cl., etc.
the	668	7	3		3	1	(definite article.)
their	30	1	1		2	2	(As the possessive case of they. a. and pron.)
them	45	1	1		1	1	(as the objective case of they. pron.)
then	65	8	4	1	4	2	(adv.) Soon afterward or immediately; next.
there	62	5	5	3	2	2	(adv.) Used as an ex- plicative in "there is," etc.
they	105	2	1	1	1	1	(pron.) Plural of he, she, it.
thing	18	8	3		1	1	(n.) Any distinguish- able object of thought.

\* --Take: two meanings have same number of occurrences.



Words of the 1st 100	Frequency of use in R.	Dictionary Categories		Odd Uses in R.	Parts of Speech		Most frequent meaning or use briefly given
		List- ed	In R.		List- ed	In R.	
this	26	1	1	1	2	2	(Adjectival use.)
time	32	30	5	1	2	1	(n.) A particular point, period, or part of duration.
to	366	17	7	3	2	1	(Used as the sign of the infinitive mood.)
two	22	4	3		2	2	(a.) A cardinal number.
up	47	15	6	8	4	2	(adv.) In or toward a higher position; above.
very	48	8	3	1	2	2	(adv.) In a high degree.
was	147	8	5	4	1	1	(v.) Copula with pred. n. and pred. a.
way	15	23	4	1	1	1	(n.) Manner, method, style.
we	33	1	1	3	1	2	(pron.) Reg. pl. of I.
well	29	21	5	3	4	3	(interj.) In that case.
were	58	8	4	5	1	1	(v.) To exist relative to a certain place, etc.
what	80	15	4	2	2	1	(a.) An interrogative as to the nat. and iden. of object.
when	63	6	4	2	2	1	(adv.) At, during, or after the time that.
where	17	6	3	1	3	1	(adv.) At or in what place; in what condition.
which	5	5	2		2	2	(a. pron.) Used as a relative pronoun.

Words of the 1st 100	Frequency of use in R.	Dictionary Categories List- ed	Odd In R.	Parts of Speech In List- ed	Parts of Speech In R.	Most frequent Meaning or use briefly given	
who	20	3	2	1	1	(pron.) As a simple relative.	
will	49	19	1	1	2	1	(v. auxiliary) Expressing willingness, assent, etc.
with	64	14	7	2	1	1	(prep.) In accompaniment, or in the company of.
work	17	35	5		2	2	(n.) Toil, labor; & the task at which one labors. *
would	33	3	3	4	1	1	(v. aux.) Conditional mood rejected condition.
year	6	4	2	1	1	1	(n.) As a unit of time corresponding to earth's circuit of the sun.
you	103	1	1	2	1	1	(Pron.) Indicating the person addressed.
your	23	1	1	1	1	1	(poss. pron. used as an adj.) Of or belonging to you.
Totals pp. 16 to 22=	6183	1110	385	166	227	159	

If each of the above column totals be divided by 103 (the number of words actually in the first hundred as listed in The Teacher's Word Book) averages obtained for the items are:

60.8      10.7      3.76      1.6      2.2      1.5

The above indicate that:

On the average, each of the words of the first hundred appears nearly 61 times in the first 125 pages of the Buswell-Wheeler second reader.

Webster's Collegiate Dictionary lists an average of 10.7 meanings for each of these words.

\* Work: The two meanings separated by & appeared an equal number of times in the second reader.

Of these meanings listed in the dictionary, an average of 3.76 for each word of the first 100 was found to appear in the portion of the reader used.

The average number of parts of speech enumerated in the dictionary for each of the first hundred words was 2.2.

Each word in the first one hundred and twenty-five pages in the second reader occurs as different parts of speech an average of one and one-half times.

The foregoing study served as the means for a close examination of The Teacher's Word Book. Beginning on page 31, a criticism is given of that book.

PART TWO

THE TEACHER'S WORD BOOK, A CRITICISM

## PART TWO

### THE TEACHER'S WORD BOOK, A CRITICISM.

The Teacher's Word Book may be criticized from several approaches. First, it is possible to take up the problem of selecting the root forms of the words. It seems likely that Mr. Thorndike's effort to simplify the word list resulted in confusion. This matter can be explained to best advantage by including a quotation from the introduction of The Teacher's Word Book, page v.

"It should be noted that, except for special reasons, separate entries are not made of plurals in s; plurals where y is replaced by ies; adverbs formed by adding ly; comparatives and superlatives formed by adding er and est (including changes of y to ies and iest), or r and st; verb forms in s, d, ed (including changes of y to ies and ied), and ing; past participles formed by adding n, and adjectives formed by adding n to proper nouns.

For example:

boys, girls, berries are counted in with boy, girl,  
berry

badly, sadly are counted in with bad, sad

longer, bravest are counted in with long, brave

plays, playing, played are counted in with play

thrown, outgrown are counted in with throw, out-

grow

Austrian, Bavarian are counted in with Austria,  
Bavaria.

By entering such derivatives under their primary forms, the list is made shorter and easier to use.

"Where separate entries do occur, it is because the derived word is likely to offer some difficulty to pupils, and not be known easily from knowledge of the primary word. Thus likely would not be known from like; being and building should probably often be learned independently of be and build; and coming may appear in the work of Grade I before there has been enough experience of ing to enable the pupil to derive it by himself."

Under the arrangement planned and worked out, there appear these shortcomings:

With regard to the formation of plurals an important function of a word book might well be to show the relative frequency of use of s, es, and ies in the formation of the plural. Not only should the plurals of the types found in boys, girls, berries, be noticed, but also the type found in potatoes and similar words should be noted.

Adverbs ending in ly (formed in analogous meanings to their root adjectives) need to be kept separate from the adjectives. Nearly was not listed separately from near. Neither were ly adjectives kept separate from ly adverbs, when they were identical in form. Likely (an adverb, meaning probably) was not kept separate (so far as may be told from the account of the procedure) from

likely (an adjective).

It seems that by including the comparative er and the superlative est with the word to which they attach, nothing is shown regarding the importance of learning these forms (comparative and superlative); nor is anything revealed as to which form is the better literary usage for a particular word.

When the tense forms from regular verbs are counted without distinction under the root verb, in some cases, and in other cases not counted; and when most irregular verbs have their various tense forms given separately, it seems likely that tabulations as to the frequency of usage of the words, no matter how carefully made, will be highly inaccurate. Go, went, gone, goes, going, are tabulated separately; so too are cry, cries, cried; but plays, playing, played are counted in with play.

In such a word book where several of the meanings and forms of a word are counted together in making tabulations, unreliability is sure to result. When plays, playing, played are counted in with play, no distinction is kept between any of the structural forms of the word play, nor between the various meanings of the word itself.

The criticism is thus led one step further. The word play as an intransitive verb has seven meanings listed by Webster's Collegiate Dictionary; thirteen meanings as a transitive verb; and thirteen meanings as a noun, according to the same dictionary. When plays, playing, played are counted in with play many diverse elements

are therefore thrown together. A play meaning a drama, and plays, the plans of a football strategist, are in no wise distinguished in their importance from play, the verb meaning to busy one's self for diversion. If each form or meaning of the word play was listed separately, each word might have conceivably a much lower ranking than that given the word play by Thorndike, since all meanings of the word were counted in the placement.

It is unlikely that all the uses of the perfect participle are learned at the same time the infinitive form of the verb is learned. In the procedure of ranking thrown, outgrown, shown with throw, outgrow, show, attention is not directed to this inconsistency. Not to distinguish between thrown in "The thrown wrestler received the cheers," "His kingdom was over-thrown," "The man was thrown from the building by the explosion," and throw in "You throw that ball, now!" is unjustifiable.

Another inconsistency is the failure to keep adjectives formed from proper nouns separate from their roots. Austrian and Bavarian are counted with Austria and Bavaria; whereas America and American, France and French are separated. The reason for such a practice is difficult to discern; obviously results from it cannot be valid.

In The Teacher's Word Book where the derived form is counted separately from the root--as in like, likely; build, building; be, being; come, coming;--nothing is given to show the significance of the several forms. Either as a participial adjective or as a verb, coming is not distinguishable.



Again, there are words listed in The Teacher's Word Book, such as with, for, and gorge, which have diametrically opposite meanings in different contexts. Notice the following:

"The American soldiers marched with the English against the Germans." Compare the foregoing with: "The Revolutionary soldiers fought with the British at Valley Forge."

Compare the meanings of for in: "We are pinched for room for our books."

Notice the antithetical meanings of gorge in these sentences: "That beautiful gorge was made by a glacier years ago." "The river was being obstructed by a veritable gorge of ice and logs."

The Teacher's Word Book does not reveal which meaning of a word should be learned first. How may the teacher or the pupil find out which meaning of the word is most important?

It is absurd to suggest that the time to teach all meanings of a word is when the word is first brought to the pupil's attention. Should the student learn piano, meaning soft, at the same time that he becomes familiar with the word as the name of a musical instrument? This of course is ridiculous. Use should govern teaching.

Other questions arise, almost without number. For example, should not the elements of certain compound words be learned as word units, and counted as such in a word book? Some of the prefixes and suffixes occur in many combinations with a frequency that rivals that of many common words. In The Teacher's Word Book prefixes and suffixes were not ranked. This obviously is a minor criticism.

Again, words occurring and appearing as units, though not joined together, were not given separate recognition as a unit. As an example of what is meant, notice out of, in "He gave it out of pity." Such combinations do have the unity of meaning of a single word, even though two words make them up. Should not these units be given a ranking as to their importance for the student by a word book adequate for its purpose?

Another element which should enter into a proper plan for constructing a valid word book is the one recognized by Thorndike when he weighted the words appearing in certain pieces of literature more heavily than words appearing in others. Perhaps this was done according to the estimated frequency with which those pieces of literature were read. No explanation of this weighting system has appeared in print. (The foregoing statement is true so far as the writer has been able to discover up to September, 1929.) In The Teacher's College Record for September, 1921, however, the weighting of the words in the index number system adopted by Thorndike is presented at length.<sup>1</sup> Without having the data available for study, the writer can offer little criticism of this phase of the procedure used in constructing the book.

#### SUMMARY

When The Teacher's Word Book was published it was greeted by most educators with great enthusiasm. The large scope of the undertaking, the vision, the plan of the research upon which it was

1. Thorndike, E. L. "Word Knowledge in the Elementary School," The Teacher's College Record. September, 1921.

based, caused it to receive favorable criticism. Its uses appeared to be numerous.

It appeared that significant facts concerning the elements differentiating good literature from that not so good could be ascertained by finding out what percentage of words of a given frequency value were used by various authors. The effort so to use The Teacher's Word Book made it apparent to certain students that the book itself had serious defects.

It is obvious that words have exact significance only in context, either for reader or writer. It is the necessity, therefore, to distinguish word meanings and to separate them in preparing tabulations of the frequency of appearance.

The Teacher's Word Book does not indicate which meanings, forms, usages are primary in importance; nor does it utilize a consistent technique in the word forms that it keeps separate. For the construction of a valid word book it appears necessary for parts of speech to be separated, and for suffixes, prefixes, and phrases possessing the significance of single words to be included in the list.