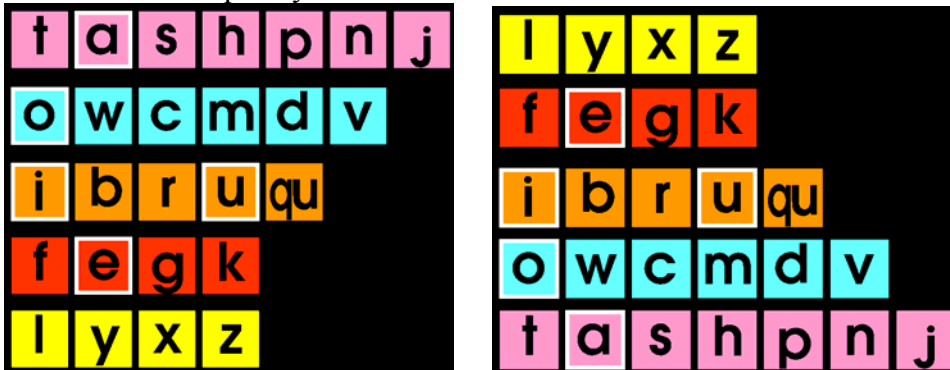


Keyboard Layouts

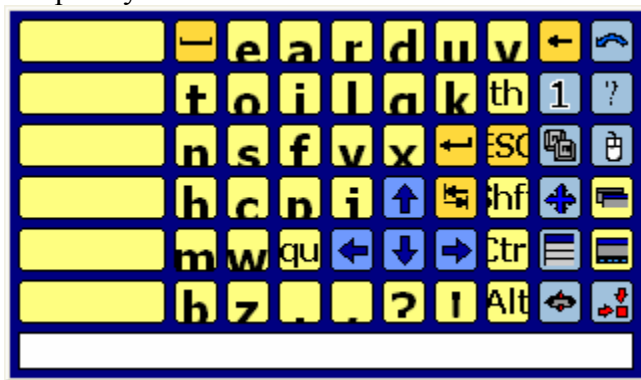


- Typewriter keys
- Function keys
- Enter keys
- Windows keys
- Numeric keypad
- Other
- Application key
- Cursor control keys

Initial Letter Frequency



Frequency of Occurrence



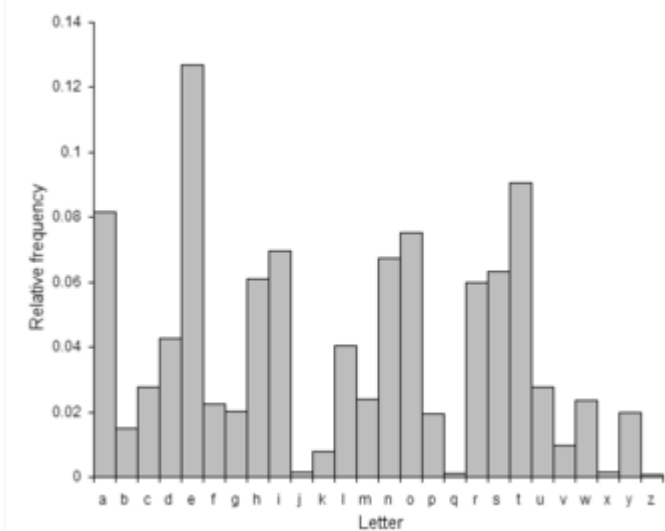
The Frequency Use overlay was created for a student with limited vision and limited range of motion. The letters used with higher frequency are located in the center of the overlay for easy access.



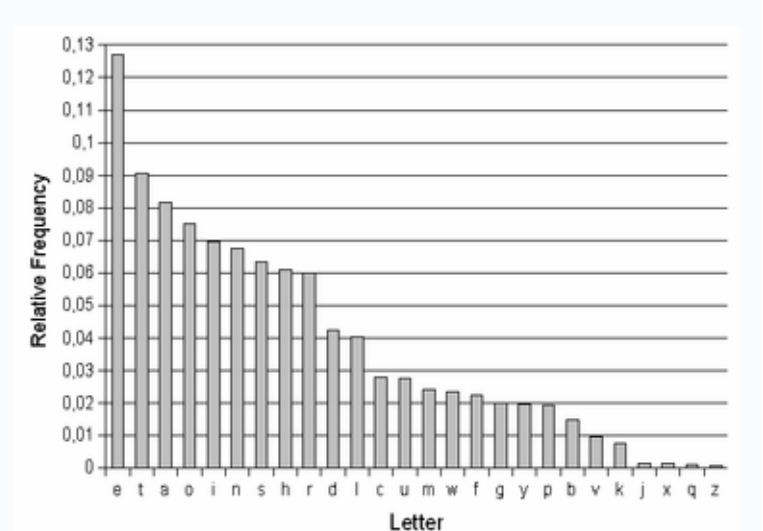
The inventor of Morse code, Samuel Morse (1791-1872), needed to know this so that he could give the simplest codes to the most frequently used letters. He did it simply by counting the number of letters in sets of printers' type. The figures he came up with were:

12,000	E	2,500	F
9,000	T	2,000	W, Y
8,000	A, I, N, O, S	1,700	G, P
6,400	H	1,600	B
6,200	R	1,200	V
4,400	D	800	K
4,000	L	500	Q
3,400	U	400	J, X
3,000	C, M	200	Z

Relative frequencies of letters



Relative frequencies of letters in text.



Top 10 beginning of word letters

Letter	Frequency
t	0.1594
a	0.155
i	0.0823
s	0.0775
o	0.0712
c	0.0597
m	0.0426
f	0.0408
p	0.040
w	0.0382

Top 10 end of word letters

Letter	Frequency
e	0.1917
s	0.1435
d	0.0923
t	0.0864
n	0.0786
y	0.0730
r	0.0693
o	0.0467
l	0.0456
f	0.0408

Relative frequencies ordered by frequency.

By letter		By frequency	
Letter	Frequency	Letter	Frequency
a	0.08167	e	0.12702
b	0.01492	t	0.09056
c	0.02782	a	0.08167
d	0.04253	o	0.07507
e	0.12702	i	0.06966
f	0.02228	n	0.06749
g	0.02015	s	0.06327
h	0.06094	h	0.06094
i	0.06966	r	0.05987
j	0.00153	d	0.04253
k	0.00772	l	0.04025
l	0.04025	c	0.02782
m	0.02406	u	0.02758
n	0.06749	m	0.02406
o	0.07507	w	0.02360
p	0.01929	f	0.02228
q	0.00095	g	0.02015
r	0.05987	y	0.01974
s	0.06327	p	0.01929
t	0.09056	b	0.01492
u	0.02758	v	0.00978
v	0.00978	k	0.00772
w	0.02360	j	0.00153
x	0.00150	x	0.00150
y	0.01974	q	0.00095
z	0.00074	z	0.00074

ENGLISH

Order Of Frequency Of Single Letters	E T A O I N S H R D L U
Order Of Frequency Of Digraphs	th er on an re he in ed nd ha at en es of or nt ea ti to it st io le is ou ar as de rt ve
Order Of Frequency Of Trigraphs	the and tha ent ion tio for nde has nce edt tis oft sth men
Order Of Frequency Of Most Common Doubles	ss ee tt ff ll mm oo
Order Of Frequency Of Initial Letters	T O A W B C D S F M R H I Y E G L N P U J K
Order Of Frequency Of Final Letters	E S T D N R Y F L O G H A K M P U W
One-Letter Words	a, I.
Most Frequent Two-Letter Words	of, to, in, it, is, be, as, at, so, we, he, by, or, on, do, if, me, my, up, an, go, no, us, am
Most Frequent Three-Letter Words	the, and, for, are, but, not, you, all, any, can, had, her, was, one, our, out, day, get, has, him, his, how, man, new, now, old, see, two, way, who, boy, did, its, let, put, say, she, too, use
Most Frequent Four-Letter Words	that, with, have, this, will, your, from, they, know, want, been, good, much, some, time

Most common English words: The only way to measure this is to analyse a large collection (or 'corpus') of texts, but lists based on different collections (or 'corpora') tend to disagree about even the top ten words in English. A rough top thirty might look something like this:

the	in	he	his	are	have
of	is	for	be	this	they
and	that	as	at	by	not
a	it	on	you	from	or
to	was	with	I	had	one

But *you*, for example, comes 8th in a list derived from the 'American Heritage' corpus (Carroll et al, 1971), 12th in a list based on the [British National Corpus](#), 32nd in a list based on the 'LOB' (Lancaster-Oslo/Bergen) corpus (Hofland & Johansson 1982), and 33rd in a list based on the 'Brown' corpus (Francis & Kucera 1982).

Dvorak



Dvorak right handed



Dvorak left handed



Dvorak and Dealey studied [letter frequencies](#) and the [physiology](#) of the hand and created the layout to adhere to these principles:

- It is easier to type letters alternating between hands.
- For maximum speed and efficiency, the most common letters and [digraphs](#) should be the easiest to type. This means that they should be on the home row, which is where the fingers rest.
- Likewise, the least common letters should be on the bottom row, which is the hardest row to reach.
- The right hand should do more of the typing, because most people are right-handed.
- It is more difficult to type digraphs with adjacent fingers than non-adjacent fingers.
- Stroking should generally move from the edges of the board to the middle (as an example, rap your fingers on a table and see which is easier: going from little finger to index or vice versa). This motion on a keyboard is called *inboard stroke flow*.