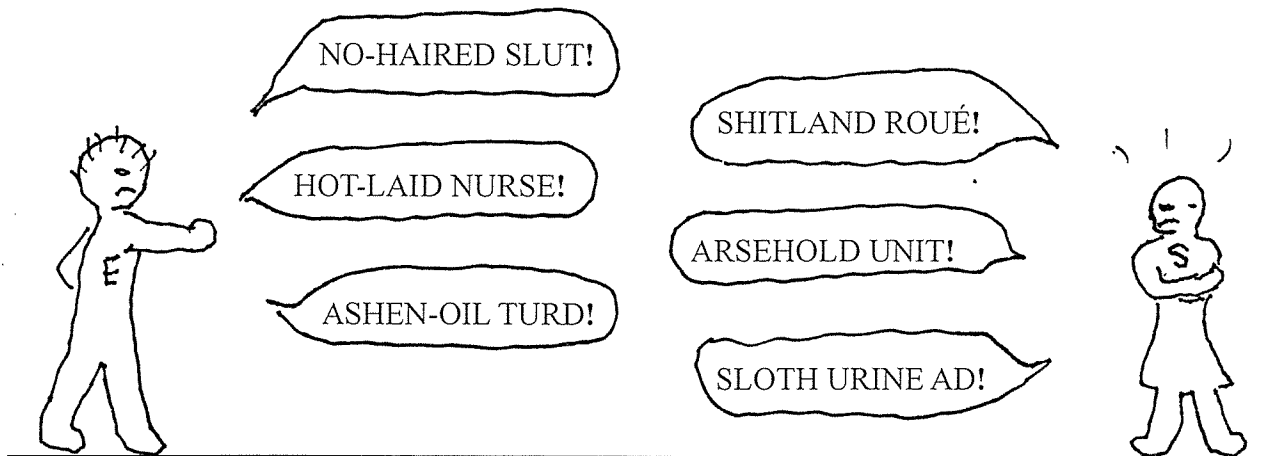


## ETAOIN SHRDLU WORDS

ANIL

Perth, Australia



Etaoin and Shrdlu Having Words With Each Other

### • PURE WORDS

Etaoin shrdlu (e-s), the classic 12 most frequent letters, make up 46% of the alphabet and are the first letters on 55% of Web3 pages, so one would expect lots of words to contain these letters alone. Toward quantifying this I did an indicative study sampling the head word on 4/10 of Web3 pages (every -2, -5 -7 and -0). Of 1063 words just 117 were pure e-s (11% or 20% of e-s initials). 38% (400 = 249 e-s initials + 151 other) had a single miss, so 49% of the words contained no more than one non e-s letter. It's interesting that there were 3.4 times more single non's than pure e-s.

Most common single extra letters were C 71, P 63, G 51, M 41. Add C to e-s for a half alphabet and 18% are pure "etaoin shrdlu". ("A twin-shared luck" beats "a twin-shared loo"!). Conversely, take away successive letters from e-s and the % declines rapidly: e-s = 11.0%, -U leaves 8.6%, -L 5.8%, -D 3.3%, -R 1.5%, -SH 0.4% (only 4 pure etaoin words). From the E end the decline was even faster, as expected: -E 4.7% left, -T 2.8%, -A 1.5%, -O 0.3%, -IN 0.1% (just 1 shrdlu word).

### • TRANSPOSALS

The only reported transposal of etaoinshrdlu is **outlandisher** (OED). I add **antishoulder**, unlisted but with many Net quotes for the hyphenated spelling, mostly related to countering 'shoulder surfing', plus one unhyphenated use, antishoulder policy, meaning no bicycles allowed on road shoulders. Jeff Grant found another transposal cited on the Net, the coinage **out-hardlines**.

### • LONGEST

My longest e-s words were **alliterational** and **Neanderthaloid** (14 letters each). **Interinstitutional** (18), the longest in M-W Pocket Dictionary, oddly isn't in Web3. **DEINSTITUTIONALISATION** (22, Chambers; inferred plural 23) is the longest listed e-s word found. Other long words inferred or in Net quotes: **disinterestednesses** (19, plural inferred + Net); **antiauthoritarianists** (21, Net + Web3 -ism); **interinstitutionalised** (22, Net); **deinstitutionalisationist** (25, Net, adjective); and **antideinstitutionalisations** (27, Net, plural inferred). Antideinstitutionalisationists, a 30-letter coinage from Jeff, had no hits. Can readers find longer ones, listed, inferred, or googled?



## Deciphering WHO NEEDS VOWELS?

ANIL, Perth, Australia (or Anile, 'peareth sterile?)

### • Definitive Anagram:

aN = oNe. Several others turned up in the lists below (cf). Another is seen in this article's title, NDS: NeEDS ≈ eNDS (our needs [or imagined needs] create our aims). The title could then read: "Who Ends Vowels?" That would be your friendly vocaliclastic author.

### • Anagram Word-Square Poem:

ONE  
NEO  
EON

(The poem's message is: whether it's a happy new eon depends on one's actions and viewpoint.)

### • Vowelless Monogram/Bigram Transposals "Chilling Challenge":

I only did the monogram N and bigram pair R/S (guessing them to be the richest), as a benchmark to be bettered. Most words are from Web 3 and Collins Scrabble Dict. and exclude affixes, abbrvs. and capitalised and non-English words. N had 70 "transposals", 12 in M-W Pocket Dict. (bold):

N = **aeon/eon** ain aine ainee aini ainoi **an** ana an'a ane ani anoa anoia anu/anyu **any** aune ayin 'ayn ean een e'en †eena/†eenee/§eenie/†§eeny/†eny eina eine en ene eoan §eunoea/§eunoia eyen/eyne **in** inia **ion** 'n/'n' na/nae naio nao naoi **nay** ne né/**née/nee** nie **no** noa noo noy nu ny nye **on one** onie ono ony oon un unai/unau uni.

† OED, OED2, or Shorter Oxford / § Wiktionary/Wikipedia

R/S had 179 transposals (125 RS+54 SR), or 157 (104+53) excluding \*/\*\* noted; 43 in MWPD.

\* nonce plural of an adjective, etc, as a word (noun) in itself; eg, "There are not two aerys in this sentence," aery being an adjective treated as a noun;

\*\* nonce noun of action made by adding -er to a verb, sanctioned by Fowler for any English verb.

RS = aeras **aeries** †aeris †aerious aeros aers \*aerys aeries \*aires **airs/ayres** air-sea \*airys aras araise arayse **areas** ares **arias** ariose ariosi arioso aris **arise/arose** **arouse** ars arse arsey/arsy, aruis arusa aryas \*arys **auras** \*auraes \*aureis/aureus aureous aures/auris aurous \*\*ayers **ears** 'ears \*e'ers \*eeries/\*eerys **eras** **erise** eres \*eries eros erose ers **euros** eyers eyras eyres **eyries** ioras **ires** **iris** **oars** \*oarys \*o'ers \*oors \*oories oras **ores** ors orse \*orys **ours** \*ouries oyers rais/reis **raise** ras rase rayas **rays** rees reis res resai resay reseau resee re-sue reus/\*reas/\*reaes **reuse** \*reys reyes rias **rise** roes rois roos roosa roose **rose/rosè** **rosy** **roués** **rouse** r's **rues** rusa **ruse** ryas **ryes** \*urs uraeus uraos ureas urease ures †uroos ursa/ursae urus.

SR = asar asor easier **easier** eyesore osar osier sair/sare sar sari/saree saury sayee sayer see-air, sea-ear **sear** seare **seer** seir ser **sera** serai seraya **sere** serio **sir/sire/siree** siri **soar** soiree soor sora **sore** soree sori sory souari **sour** sra sri suer sur sura **sure** \*\*syer usar user usura/usurae/usure/**usury**.

Since the bigram far outweighed the monogram, there are probly trigrams (eg, N/R/S or R/S/T) with even more transposals. In any case it seems we *do* need vowels for very short consonant groupings. How large a group is necessary to get by without vowels? Generally that is, allowing exceptions of course. Re-reading the vowelless text above I'd guess four consonants will usually suffice, even three in most cases. But most ones and twos need vowels. Yet in the context of a sentence even they can very often be read without their vowels, barring exotic words.

A somewhat similar idea to this was explored in Ross Eckler's 82-119 "Compression of English Text". Instead of vowels he eliminated different percentages of the most superfluous letters to create the least ambiguity.

• All-Vowel Words:

My search ran into some of these oddities. Most are in Borgmann's *Language on Vacation* (p. 156) but not **aye-aye** and *Iouea*. *Iouea* is the shortest word with all five vowels and the shortest four-syllable word, but it was coined to be such by the wordsmith zoologist who named this sponge genus (Wiktionary). Borgmann also cites the one-consonant word Aeaeon, which I omitted from my N list as it's capitalised.

• Cognate to Near Definitive Vowelless Anagrams:

Notes: † = also anagrams *with* their vowels; †† = reversals.

I. etymologically related:

aine, ainee (elders: M, F)	ayin/ain, 'ayn/ain (Hebrew, Arabic alphabet letters)
airs, arias	† raise, arise, rise
an, one (noted above)	sear, sere (scorch, dry)
areas, ares	sir, sire
aures/auris, ears	reyes, rois (kings)
aureus, aureous, aurous	

Plus several alternative spellings of the same word, like ain/ane/one/un, na/nae/nay/no, sere/sear (dry), usura/usurae/usure/usury.

II. unrelated (some flawed by being different parts of speech):

airs, raise (voice/s opinions)	raise, rouse
airs, soar (fly/s),	†† reus, suer (antigrams, defendant/plaintiff; picture
ares, ures (land area units)	the two facing off in court mirroring each other)
auras, rays (haloes)	roes, rusa (deer) *
† ears, 'ears (hears—dialect)	sayer, sure (commonly the same)
† erase, easer	† sear, rase (burn, burn down)
† eros, rose (poetic, slang; + pun!)	† sir, sri
eyres, oyers (courts, trials)	sore, sour (adj. of people)
in, on (occasionally interchangeable; otherwise usually antigrams)	

\* There are also eight other mammals: aruis (sheep), euros/roos/uroos (kangaroos), eyras (wildcats), ursa/ursae (bear/s), urus (aurochs);

two + six plants: anu/anyu, naio / aras, arusa, osier, roosa, seraya, souari;

two + three birds: ani, nye / ioras, soor, sora;

five moneys: aureus, euros, †oras, reis, †rosa;

eight related to vision(s): iris, seer/seir/ser, eyers, eyesore, rays, resee;

and five related to anger or bitterness: †ires/rise, rouse, sore, sour.

Years (= eras) isn't listed as that y is a consonant, which I believe it isn't in any of the list words.