Table 6.1. Proportion of alternative spellings of vowel sounds
Although the most common way of writing each vowel sound is with one letter, in a comparatively small proportion of words, the vowel sound is written with two letters. Children often have difficulty knowing which vowels to use. The following calculations, compiled by Elsie Smelt (1976), were based on the Stanfat Spelling Study (Hanna et al., 1971). The study used more than "17,000 wods (from a core vocabulary containing most of the words used by educated speakers and writers)" (Hanna et al., 1971,p. 80). T each children to rely on the most commonly used letter-sound correspondences.

| The sound... | Is written as . . . | In X\% of words | Examples |
| :---: | :---: | :---: | :---: |
| /ā/ | a | 80 | mate, vacation |
|  | ai | 9 | nail |
|  | ay | 6 | day |
| /ē/* | e | 72 | me, zero |
|  | ee | 10 | deep |
|  | ea | 10 | heat |
| /ī/ | i | 74 | hide, pilot |
|  | $y$ | 14 | try |
|  | igh | 6 | sigh |
| /ō/ | $\bigcirc$ | 87 | hope, hobo |
|  | oa | 5 | boat |
|  | ow | 5 | low |
| 100/ | u | 90 | tune, mute, cupid |
|  | ew | 3 | new |
|  | eu | 2 | feud |
|  | ve | 2 | due |
| /ă/ | a | 100 | hat |
| /ĕ/ | e | 93 | bet |
|  | ea | 4 | head |
| /I/ | i | 73 | hid |
|  | y | 23 | funny, symphony* |
| /ŏ/ | $\bigcirc$ | 95 | hot |
| /ŭ/** | u | 88 | hut |

From Smelt, E. (1976). Speak, spell and read English (p. 102). Melbour ne: Longman Australia; adapted by permission.
*Many dictionaries that were published before the 1980s gave the final letter y as infunny or muddy the short/Y/ sound. This grapheme is now pronounced more frequently as long /ē/, especially in the Midwest and western United States.
**Smelt noted that many short words that contain the sound of ŭ contain an o. I prefer to teach these words, such as son, love, mother, and done, as nonphonetic memory words.
three-letter VC and VCV words, such as at and pat, to those with consonant blends and consonant and vowel digraphs, to two-syllable words, to affixed base words.

## SPELLING RULES

Students also need to learn six categories of spelling r ules. Most apply to AngloSaxon words and occur because of the short vowel sounds. Many teachers talk about "rules" that are actually not orthographic rules. Melvyn Ramsden cautioned teachers that "if you find an 'exception' don't blame the system-you might have got [sic] your 'rule' wrong" (2000, p. 11). For example, teachers often say, "When two vowels go walking, the first does the talking." Smelt (1976) found that this
statement is only true $37 \%$ of the time; it works for $a i, o a, a y$, and $e e$ but not for $o o$, $o y, e w, a u$, and $a w$.

Teach the following rules when students are ready for them:

1. Silent $e$ rule (VCE rule)
a. Silent $e$ on the end of a word signals that the single vowel immediately peceding a single consonant is long, as incube and vote (i.e., the silente makes the vowel sound like [or "say"] its name; sometimes this rule is called the "magic e rule").
b. Silent $e$ makes $y$ sound like $/ \overline{\mathrm{i}} /$ as in type and style.

A preceding single vowel may or may not be long before -ve. The vowels in gave, five, and drove are long; the vowels in have, give, and love are not long.
2. Doubling rule (-ff, $-l l,-s s,-z z)$

Double final $f, l, s$, and sometimes $z$ immediately following a single vowel in a onesyllable word, as in staff, bluff, tell, still, grass, bliss, buzz, and jazz. (Common exceptions are pal, gal, if, clef, gas, this, us, thus, yes, bus, plus, and quiz. Although quiz contains two vowel letters, $q$ is always followed by $u$ in English wor ds, so only $i$ is considered a vowel in quiz.)
3. Soft $c$ and $g$ rule

The letters $c$ and $g$ have a "soft" sound when they appear directly before $e, i$, and $y$.
a. The letter $c$ has the $/ \mathrm{s} /$ sound before $e, i$, and $y$, as in cent, city, and cycle.
b. The letter $g$ has the $/ \mathbf{j}$ / sound before $e, i$, and $y$, as in gentle, ginger, and gym. (Exceptions to the soft $g$ rule do not present spelling problems because in such exceptions, $g$ has its "hard" sound, as in get, give, buggy, and bigger.)

The hard sounds of $c$ (as in cat, coat, and cub) and $g$ (as in gas, got, and gum) are taught first. Only after these are well established are the soft sounds and the corresponding rule introduced.
4. The -ck, -tch, -dge rule
a. Use-ck to spell the $/ \mathrm{k} /$ sound immediately after one short vowel at the end of a one-syllable word, as in back, clock, duck, stick, and deck.
b. Use -tch to spell the / ch/ sound immediately after one short vowel at the end of a one-syllable word, as in batch, itch, stretch, Dutch, and notch.

Common exceptions to the -tch rule, such as such, much, rich, and which, should be memorized.
c. Use -dge to spell the / j / sound immediately after one short vowel at the end of a one-syllable word, as in badge, ledge, bridge, dodge, and fudge.
5. Adding suffixes to Anglo-Saxon base words
a. Drop final-e rule: When a base word ends in a finale, drop the $e$ before adding a suffix starting with a vowel (e.g., take, taking; fine, finer; stone, stony).
b. Double-letter rule: In a one-syllable wor d with one short vowel (a closed syllable) ending in one consonant, double the final consonant before a suffix starting with a vowel (e.g., -ed, $-e r,-i n g,-y,-i s h$ ). Do not double the final consonant before a suffix starting with a consonant (e.g.,-ful, -est, -ly,-ment, -ness). Examples: fit, fitted, fitful; sad, saddest, sadly; r ed, redder, redness; and ship, shipping, shipment.

One-syllable base words that contain a vowel digraph or that end in two consonants do not need to double the final consonant, as in heat, heater and help, helping. The doubling rule for polysyllabic base and root words is covered in Chapter 7.
c. Change final $y$ to $i$ rule: When a base word ends in $y$, change the $y$ to $i$ before adding a suffix, unless the $y$ is preceded by a vowel or unless the suffix begins with $i$ (-ing,-ish,-ist ). Examples: cry, cried, crying; copy, copied, copyist; and play, player, playing.
6. Plural -s and -es rule
a. Most nouns become plural (to indicate mor e than one) by adding -s (e.g., hat, hats; pig, pigs; girl, girls; hut, huts).
b. Nouns ending in $-s,-x,-z,-c h$, and $-s h$ add $-e s$ for the plural. Students can hear the additional syllable formed by the-es ending (e.g., glass, glasses; box, boxes; waltz, waltzes; lunch, lunches; wish, wishes).
c. Nouns ending in $y$ form the plural according to the regular suffix addition rule. That is, change the final $y$ to $i$ and add -es, as in fly, flies. If the letter $y$ follows a vowel, then keep the $y$ and add $-s$, as in boy, boys.
d. Exceptions exist for some nouns ending in $f$ or $f e$; these change to -ves, as in shelf, shelves; leaf, leaves; knife, knives.
e. Nouns ending in $o$ sometimes add $-s$ and sometimes add -es (e.g., piano, pianos; tomato, tomatoes). Students should check their dictionaries to be sure.
f. Some plurals are completely irregular and must be learned (e.g., foot, feet; mouse, mice; man, men; woman, women; goose, geese; moose, moose; pants, pants; deer, deer). Most of these can be spelled correctly by using sound sequences for clues.

Children may question the use of $x$ versus -cks. Singular nouns usually end in $x$, as in tax, box, and fox, as does the adjective six. Plural nouns or singular third-person verbs tend to end in -cks with -s as the suffix, as in socks, locks, he picks, and the chicken pecks.

Just as when learning a new pattern, children should have ample opportunities to read and spell numerous words fitting each rule. The teacher should make the rules concrete for students. The teacher may state the rules but also must work with students so that they practice and think about each $r \quad u l e$. Working on the chalkboard or with transparencies is useful. For example, when discussing changing $y$ to $i$, the teacher can easily erase and change the $y$ to $i$ if the conditions permit (e.g., try, tried, trying).

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