In any game, the rules play a vital role. They are designed to make the game more enjoyable by eliminating controversy during the play. Thus, in any game the rules should be followed rigorously. Doing otherwise would not actually be playing the game -- it would be playing a modified, less strict version.

In SCRABBLE® Brand Crossword Game (hereafter referred to simply as Scrabble) -- nearly all the rules have remained the same since the game was invented in 1948. In fact, the only major rule change occurred in 1976. But, unfortunately, most Scrabble players do not know about this new rule. The purpose of this article is to explain the effect of this rule on one of the most fascinating aspects of Scrabble: the search for the highest possible score that can be achieved (1) in a single turn and (2) in a 99-tile game.

For two decades these high scores have intrigued both Scrabble players and logologists. Word Ways first presented the topic of high-scoring Scrabble in May of 1972. On page 99 of that issue, the highest-known scores were printed, and readers were challenged to improve them. Not long afterwards, a new British magazine, Games and Puzzles, started a flashy, year-long contest in which readers competed to find the highest score for a single turn. The winning entry scored 1,949 points using the key word BENZOXYCAMPHORS. The February 1974 issue of Word Ways summarized the contest and the rules used in it. Quoting from the November 1972 issue of Games and Puzzles:

Standard Scrabble rules shall apply, except where modified or changed by these rules.

All words used must be listed in one or more of the following dictionaries: The Oxford English Dictionary; Websters New International Dictionary, Second Edition; Websters Third New International Dictionary.

The only exceptions to (the preceding rule) are the following derivative words:

(i) the plural forms of nouns allowed by (the preceding rule)
(ii) verb forms ending in -ED, -ING, and -S for infinitive verbs allowed by (the preceding rule)

No other derivative words or terms will be allowed. No hyphenated, apostrophized, accentuated or diphthongized words will be allowed. No proper names will be allowed.

Thus, for example, the following words are allowed:

(1) the infinite part of speech
(2) a. the infinitive of a verb
b. the gerund (i.e., the verb form ending in -ING)
c. an infinitive phrase (infinitive + whatever follows)

If any of the above are found:

To allow any of these words, the following rules will apply:

(1) the inflected part of speech
(2) a. the infinitive of a verb
b. the gerund (i.e., the verb form ending in -ING)
c. an infinitive phrase (infinitive + whatever follows)

One of the best-known high scores in Scrabble was achieved by utilizing the words COCA-COLA. The winning entry scored 1,368 points using the key word ORGANIC.

Since the rule change was made, the "organizational" words have been found:

(1) the plural forms of nouns allowed by (the preceding rule)
(2) verb forms ending in -ED, -ING, and -S for infinitive verbs allowed by (the preceding rule)

No other derivative words or terms will be allowed. No hyphenated, apostrophized, accentuated or diphthongized words will be allowed. No proper names will be allowed.

Thus, for example, the following words are allowed:

(1) the infinite part of speech
(2) a. the infinitive of a verb
b. the gerund (i.e., the verb form ending in -ING)
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(1) the inflected part of speech
(2) a. the infinitive of a verb
b. the gerund (i.e., the verb form ending in -ING)
c. an infinitive phrase (infinitive + whatever follows)
Since the publication of those rules, several improvements have been made, each apparently influenced by those rules in that each as (1) used several different dictionaries as word sources, (2) allowed nearly all uncapitalized, unpunctuated words listed in the dictionaries or used in quotations in the dictionaries, and (3) allowed regular inflections to be applied to any words whose inflected forms are not shown. Whether all of these practices were legal for Scrabble up to 1976 is difficult to decide. The following were the Scrabble rules concerning acceptable words for the years 1948-1976:

Any words found in a standard dictionary are permitted except those capitalized, those designated as foreign words, abbreviations, and words requiring apostrophes or hyphens.

At any rate, with the official rule revision of 1976, the above three practices became illegal, and consequently the scores that they were used to achieve have been invalid since 1976. These are the official Scrabble rules concerning dictionaries and acceptable words:

Before the game begins the players should agree upon the dictionary they will use. All words labeled as a part of speech (including those listed of foreign origin, and as archaic, obsolete, colloquial, slang, etc.) are permitted with the exception of the following: words always capitalized, abbreviations, prefixes and suffixes standing alone, words requiring a hyphen or an apostrophe.

Most standard dictionaries do not show regular plurals or verb endings. A player should check the introduction to his dictionary to see how these inflected forms are handled. Regular plurals and verbs are acceptable, i.e. BOAT, BOATS; TALK, TALKED, TALKING, TALKS.

Thus, for any particular game of Scrabble, only one dictionary is allowed. And for all games, the only acceptable words are those labeled as a part of speech. The only exceptions to this rule are inflected forms. To allow an inflected form, the following very specific items should be found:

(1) the inflected form itself or its root word listed and labeled as a part of speech
(2) a. the inflected form written out after the root word or
b. the abbreviated inflected form written after the root word (such as "-ed, -ing, -s") or
c. an explanation in the front of the dictionary that when inflected forms are not shown for a particular part of speech, they are formed regularly, or they are found by looking in some specific place.

If any of the parts of (1) or (2) are not found, the inflected form is not legal.

These rules have quite a significant effect on nearly all the top Scrab-
ble scores. The most important of these effects are summarized here. BENZOXYCAMPHORS is not an acceptable word, for BENZOXYCAMPHOR is not labeled as a part of speech. Neither supportive quotations for such words as BENZOXYCAMPHORS, BENZOXYCAMPHORY, BENZYLHYDROXIDE, BENZHYDROXYQUIN or SESQUIOXIDIZING, nor Oxford English Dictionary quotations for such words as DELIGHTFULL or VN will support their legality, unless the words can also be found labeled as a part of speech in some dictionary (and that dictionary then is used as the sole authority for the game). Though most of the scores for single turns and 99-tile games published so far in Word Ways are probably legitimate scores using the old Scrabble rules or modified versions of them, most are not legitimate for Scrabble currently. Word Ways thus invites its readers to find (1) the highest single-turn score and (2) the highest 99-tile-game score using the current official Scrabble rules as summarized above.

To aid readers in these tasks, an extensive survey of over thirty dictionaries has been conducted in order to decide which one is most likely to produce the highest scores. Webster's New International Dictionary, Second Edition, is by far the "best" of the dictionaries. Of course, the key fifteen-letter words are the most important aspect of both the single-turn score and the 99-tile-game score. There are fourteen known legal fifteen-letter words that score at least fifty points before being multiplied by 27 as a result of being played on three triple word squares. Those words are listed below, along with their point values and the major dictionaries in which they appear as legal Scrabble words:

<table>
<thead>
<tr>
<th>Word</th>
<th>Points</th>
<th>Dictionaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>dehydrofreezing</td>
<td>50</td>
<td>N2 Addenda, N3, RH</td>
</tr>
<tr>
<td>dephosphorizing</td>
<td>50</td>
<td>N2, N3, CD, F&amp;W, OED</td>
</tr>
<tr>
<td>dephysicalizing</td>
<td>50</td>
<td>N2</td>
</tr>
<tr>
<td>diazohydrides</td>
<td>50</td>
<td>N2</td>
</tr>
<tr>
<td>oxyphenbutazone</td>
<td>54</td>
<td>BG</td>
</tr>
<tr>
<td>phenylhydrazide</td>
<td>50</td>
<td>N2, N3, BG, RH</td>
</tr>
<tr>
<td>phenylhydrazine</td>
<td>50</td>
<td>N2, N3, BG</td>
</tr>
<tr>
<td>phenylhydrazone</td>
<td>50</td>
<td>N2, N3, BG</td>
</tr>
<tr>
<td>prezygapophyses</td>
<td>50</td>
<td>N2, RH</td>
</tr>
<tr>
<td>prezygapophysis</td>
<td>50</td>
<td>N2, BG, CD, F&amp;W</td>
</tr>
<tr>
<td>psychoanalyzers</td>
<td>50</td>
<td>N2</td>
</tr>
<tr>
<td>psychoanalyzing</td>
<td>50</td>
<td>N2, N3, F&amp;W, RH</td>
</tr>
<tr>
<td>psychometrizing</td>
<td>50</td>
<td>N2, N3, CD, F&amp;W, OED</td>
</tr>
<tr>
<td>reobjectivizing</td>
<td>50</td>
<td>N2</td>
</tr>
</tbody>
</table>


In several instances, the word or its root was found in one of the dictionaries not listed with it above, because the dictionary did not label it as a part of speech or did not give instructions for its inflection. The most promising word is PHENBU.

The U in C
5. once 6
15. got 16
27. newly 28
32. pre
41. the bonus of the asterisk and the score. All three inflectional variants are legal. See section IV, edition s, page xciv, for omitted words.

When words whose acceptance is as yet unaccepted, are not labelled "R." Scrabble rules, they are listed below the list.
promising of the above words would appear to be the 54-point OXY-PHENBUTAZONE. Unfortunately, though, the only dictionary that lists this word and labels it as a part of speech does not contain the shorter words necessary for its setup (such as HEN and ON). The next most promising of the above words is DIAZOHYDROXIDES. This word is, in fact, the key word in the current record-holding single-turn score of 1,757 points. Here are the details of that score: 

unequivocally 

The U in OUTDO and one of the U's in FUNAMBULATOR are blank tiles. Moves: 1. owl 2. knowledge 3. *preacknowledge 4. *fe 5. once 6. *mna 7. *tui 8. ti 9. outdo 10. ogre, to, or 11. *tua, to, fun 12. funambulator, *ak, bo, ill, ae, re 13. ore 14. oh, oh 15. got 16. eft 17. be 18. esne, ben, *fe 19. si 20. valve 21. *unequivalve 22. ego 23. rox 24. gena, ex 25. termin 26. de, ad 27. newly 28. ary 29. justiciary 30. *justiciaryship 31. diazohydroxides (1.377), *unequivaled (84), bena (6), fez (25), funambulatory (22), preacknowledged (87), termini (10), justiciaryships (96); adding the bonus of fifty points, the total score is 1,757 points. Words with an asterisk are found below the line in NI2, the word authority for this score. All the other words are found above the line in NI2 except for three inflected forms: DIAZOHYDROXIDES, JUSTICIARIESHIPS and PREACKNOWLEDGED. The first two are plurals whose singular forms are legal. Instructions for their inflection are found on page xciv, part IV, section 25: "If no plural is given, it is formed regularly, by the addition of s."

The third inflected form above is based on information on page xciv, part IV, section 30: "The principal parts are sometimes omitted when they are formed regularly by adding -ed in the past tense..."

When working with NI2, readers may encounter certain variant words whose acceptability is questionable and is thus explained here. Most variants listed below the line have no part-of-speech label and are thus unacceptable. Two examples are ABAKA and ABBAT. Most words labeled "R.S." or "Ref. Sp." (meaning "reformed spelling") are unacceptable for the same reason. Examples are ABANDOND and ABASHT, below the line.
Several dictionaries list variants next to main entries. If the variant occurs before the part-of-speech label, it is acceptable. If it occurs after the label and has no additional label of its own, it is not acceptable. NI2 examples are ABAWE (at ABAVE), which is acceptable, and ABASSI (at ABBASI), which is not.

Though the highest Scrabble scores will surely come from NI2, readers may want to find the highest possible scores for other dictionaries. An excellent idea would be to find the highest scores for the entire range of Merriam-Webster dictionaries (pocket, collegiate, NI3, NI2) to show how the scores vary with dictionary size. As an incentive to this task, a single turn scoring 1,716 points is presented here as the current record using NI3:

GLUMP
E
AH
ANE
OVERFLOWN
PERICENTAL
SHY
JABBERWOCKY
ID
DIVERSE
RUSA
FRITZ
ETI
AID
QUINOXALINE


Two inflected forms above will help demonstrate some important points about the explanatory notes in NI3. PERICEMENTA is the plural of PERICEMENTUM, and its inflection is based on the instructions in section 4.5 (on page 15a of the newer editions of NI3): "Plurals are usually omitted at compounds containing a terminal element that corresponds to a whole English word whose plural is regular and is shown at its own place. At 'blackbird,..., bioecology...' the plurals are omitted because they can be found at 'bird' and 'ecology'. At words (as bioecology) that may be unfamiliar, an etymology consisting of the elements of a compound word shows the element at which an omitted plural can be looked up." The etymology at PERICEMENTUM is "peri + cementum", and CEMENTA is given as the plural of CEMENTUM. Thus, PERICEMENTA is the plural of PERICEMENTUM. Section 4.11
gives a similar explanation for compound verbs and their principal parts. This explanation allows for the inflection of the verb OVERFLY, which then legalizes OVERFLOWN, FLOWN being given as an inflected form of FLY.

When working with NI3, readers should note that certain variant words are not labeled as a part of speech and are thus unacceptable. Examples are ABBAVE, ABRAM, ABREED and AUTOCHTHONE (at AUTOCHTHON).

High scores based on the smaller Merriam-Webster dictionaries are left as a challenge for the reader.

As a final challenge, what is the highest score achievable in a single turn using The Official Scrabble Players Dictionary? This challenge, which cannot utilize any fifteen-letter words, will also be put to the readers of Games magazine and The Scrabble Players Newspaper in future issues.

WHEN LATIN SPELLS ENGLISH


a, acre, age, ages, ago, an, at, boa, bone, cadet, cane, cave, clam, cur, dare, date, dens, die, do, dote, dote, ducat, eat, era, ere, fare, ferret, fit, flare, flat, for, fore, fur, graves, hem, his, I, is, it, late, male, mallet, mane, mare, mi, miles, mire, more, net, nix, no, pace, pane, pellet, pone, possum, post, quid, re, rear, rue, sere, sex, si, sic, sol, sole, stare, sue, sum, tale, tam, time, tot, violet

Note that cognates and direct borrowings have been rigorously excluded from this list. Can Word Ways readers add others?