

Teaching Pronunciation with the Vowel Colour Chart

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The Vowel Colour Chart is a system for teaching Canadian English vowels in which each sound is represented by a colour, the colour-word being the key word for that vowel sound. This article explains the composition of the Vowel Colour Chart, and suggests practical examples of its use with

ESL learners of all ages. Comparisons with other pedagogical and aesthetic approaches to colour and sound are given. As a teaching aid, the Vowel Colour Chart offers a wider approach for individual participation in learning pronunciation.

In every English as a Second Language class I taught, French-speaking students could not distinguish *leave* from *live*, Spanish-speaking students could not pronounce the o-glide sound in *coat*, and Chinese-speaking students read *pan* aloud as *pen*. In order to help students with the pronunciation of Canadian English vowels, I created the Vowel Colour Chart five years ago.¹ This is a classroom teaching aid and a student reference guide. It differs from Joan Morley's system of key words in that the Vowel Colour Chart's key words are colours. It differs from Caleb Gattegno's well-known, extensive system of colour charts in that the Vowel Colour Chart's colours are themselves the keywords to the sounds.

EXPLANATION OF THE VOWEL COLOUR CHART

The Vowel Colour Chart is a poster of 14 coloured circles I put on the classroom wall. I also hand out notebook-size black and white charts with the names and numbers of the colours, and the symbols in the International or Dictionary Phonetic Alphabet for the vowel phonemes, (see figure 1). The 14 colour circles represent the 10 vowel phonemes, the /ər/ sound, and the 3 diphthongs of Canadian English. The position of these vowel-colours on the chart is approximately that of the mouth diagram of the production of the vowels. Thus, the five front vowels are on the left side, high front descending to low front; the central vowels in the middle; the back vowels on the right; and the diphthongs toward the bottom.

The front vowels—represented by green, pink, gray, red, black—are numbered 1-5, as they are in Morley (1979). The sound /ər/, represented

The Vowel Colour Chart

1
green
/iy/

6
purple
/ər/

9
blue
/u^w/

2
pink
/ɪ/

7
mustard
/ʌ/

10
wood
/ʊ/

3
gray
/eⁱ/

8
olive
/a/

11
yellow
/o^u/

4
red
/ɛ/

12
white
/ai/

14
brown
/au/

5
black
/æ/

13
turquoise
/ɔi/

by purple, is number 6; /ʌ/, mustard, is number 7; and /a/, olive, is number 8. I have not included the unstressed schwa /ə/, the most common vowel sound in English. Whereas any vowel sound in an unstressed syllable may be reduced to schwa, I have used the vowel sound /ʌ/ as the distinctive stressed sound. (Students practising words with vowel no. 7, /ʌ/, would certainly practise identifying the schwa in normal speech as well.)

The back vowels—blue, wood, yellow—are numbered 9, 10, and 11; the diphthongs—white, turquoise, brown—are numbered 12, 13, and 14. The distinctively Canadian high and fast pronunciation of the diphthongs, such as the /aʊ/ sound in the word *house*, is, according to Howard Woods (1983), evident in these diphthongs about one-third of the time. To students, the pronunciation of each diphthong can be shown on the Vowel Colour Chart to be a combination sound which begins low and then rises.

Canadian vs. American Pronunciation

The chart of Canadian vowel sounds is complete with these 14 sounds. If I were to use the chart for American pronunciation, I would add, at the bottom right, the fifteenth sound, /ɔ/, represented by auburn. However, “this American unrounded version is often outside the range of . . . Standard Canadian” (Woods, 1983, p. 42). Since most Canadians do not distinguish between the words *cot* and *caught*, I have not indicated the /ɔ/ sound on the chart. Rather, sound number 8, /a/, olive, represents the usual vowel sound, its phonetic symbol representing the same sound in many other languages.

Vowel Colours and Numbers

The colours on the chart are visual clues; the colour-word is a key to the sound and its spelling. Because the circles are numbered, I may use both the numbers and the colours. The numbers offer a second system to a student who may be uninterested in colour, or even colour-blind (which has not, for example, kept him from distinguishing the three colours on a stop-light by their hue and their position.)

HISTORICAL BACKGROUND

Aesthetic Approaches

The association of colour with sound has a long and interesting history. The analogy between the musical octave (the diatonic scale and 7 notes) and the visible one (the spectrum of 7 colours) was an aspect of the

ordered worldview of Isaac Newton (Burstein, 1979). This analogy exists in many cultures, but numbers of fundamental colours and notes and their properties vary. Virtually all the great composers have associated keys with certain colours—from Beethoven's belief in B minor as the black key to Scriabin's interpretation of the keys of C, D, A, F, and F-sharp as red, yellow, green, red, and blue respectively (ibid, p. 118). According to Kandinsky (1979, p. 25), "the sound of colours is so definite that it would be hard to find anyone who would express bright yellow with bass notes."

The blending of colour and sound, synesthesia, was explored by French symbolist poets, and systematized in the work of René Ghil. His *Traité du verbe—États Successifs 1885-1904* is an imaginative linguistic analysis of the production of vowel sounds as they relate to musical notes. Ghil gives extensive outlines of all the (French) vowel sounds with their colours, as well as their emotional properties and corresponding musical instruments. These were his application of "l'audition colorée" to produce "l'instrumentation verbale" (Ghil, 1978).²

Pedagogical Approaches

There has been some use of this integrated approach in teaching language. Rudolf Steiner recommended teaching with an oral, visual, and kinesthetic approach. Based on his methods, the introduction of the vowels, which "have the quality of singing sounds," may be taught with verse. A single colourful example is: "E is long as in green, E is short as in red" (Peckham, 1979, p. 147). In learning German, children in a Waldorf school may see a fable written on the blackboard; then each child may choose a coloured chalk to represent a different sound and underline each occurrence of the sound in the fable (Friedl, 1979, p. 188)

Caleb Gattegno's Phonic Code presents all the sounds of the language in different colours, with word charts of common words exemplifying the various spellings of each sound. His is a comprehensive system of colours for consonants, vowels, and consonant-vowel combinations. The idea behind my Vowel Colour Chart is similar to Gattegno's: "Since the intention is to make English a phonetic language without altering the spelling of English words, we have used colour to differentiate among the sounds, using the same colour for the same sound, regardless of spelling" (Gattegno, 1962, p. 40). How much easier it would be if English were a phonetic language! To transcribe a sound in its quirky spelling into the constant symbols of the Phonetic Alphabet makes it easier. To represent the sound in every instance by the same colour makes it easier still. With this system, one can offer the Phonetic Alphabet as an additional key for students deciphering the dictionary pronunciation, and one can avoid

teaching the Phonetic Alphabet at all to learners with no background or interest in formal language study. For students learning spelling with pronunciation, I have found the graphemic correspondence between the colour word and the sound on my Vowel Colour Chart to be helpful. Unlike Gattegno, I deliberately associated a specific colour with a specific sound because its English name includes one of the vowel phonemes.

Synthetic and Analytic Approaches

I was unfamiliar with Steiner's and Gattegno's methods of teaching when I first developed the Vowel Colour Chart. The Steiner philosophy of proceeding from synthesis to analysis in teaching is relevant to current intellectual trends toward seeing the whole, the holistic. There is a physiological viewpoint which takes this one step further—the idea that the eye is synthetic and the ear is analytic (Burstein, 1979, p. 116). The eye, for example, perceives an orange as the colour orange rather than a combination of red and yellow; the ear, for example, distinguishes in an orchestral chord the individual instruments and notes. This idea of the eye as synthetic and the ear as analytic could support an interesting theory of teaching in a visual culture. At the least, a teacher might better understand students who can't "just listen"—students who must have a visual image of a word, see the word written, before they can deal with it. Yet one can look and listen at the same time. The eye and the ear can simultaneously perceive different vibrations along the electromagnetic spectrum. The association of both senses for aesthetic purposes in art and music, or for pedagogical purposes in teaching colours and sounds, offers a wider, more holistic approach for participation. This power of association can be effectively used.

PRACTICAL APPLICATIONS

There are a number of practical ways to use the Vowel Colour Chart. Of course, students learn the English words for the colours—mustard being a perennial favourite—from the chart of coloured circles on the wall. The five front vowels are the first to be formally introduced; then the central, the back, and the diphthongs. Explanations and demonstrations of how the sounds are made, drills, and exercises are given. At any time, when a student mispronounces a word, the teacher can request clarification by asking the student to compare one or two colour words with the word the student means. (You want to smoke: Do you mean sm/a/k as in olive, or sm/o^u/k as in yellow?) The chart is used for reference and for students' self-monitoring of pronunciation.

It can be an adjunct to the usual pronunciation exercises. In listening practice, students identify one of two vowel sounds in a word (fill: is it like the sound in number 1—green, or number two—pink?); decide whether two words have the same vowel sound (feel, pill: same or different?); and mark which of three words has the different sound (feel, meal, *pill*). Minimal pair choices (sheep or ship) are instructive and fun to do.³ However, we use words in context, and we understand the right word of a minimal pair from contextual clues as much as from perfect pronunciation. There are pronunciation exercises beyond list drills of minimal pairs.

Students in my classes identify objects and pictures of objects and then write the word with the number or colour of the sound (shoe: number 9, blue), or the word and its front vowel-colour as an adjective (*green* peas). They note the spelling of the colour-word and fill in the letter(s) for that sound in a second word (red: bell); or write rhymes for it (red: bed, led, said), and then another word (met: bet, let, set). With the spelling of the colour-word, and the spelling rules for long and short vowels (or alphabet-sounds vs. single-vowel sounds), students can deduce the possible spelling of other words with the same sound. Teachers can refer to the many good spelling lists of vowel sounds.⁴

In exercises using topics of interest to the class, students can listen to a tape of authentic (or staged authentic) speech or a story, and fill in the omitted letters in a cloze passage from it. (How *much* do they *cost*?) They can work on a written dialogue and mark the underlined sounds with their numbers or colours. (*His* (2) restaurant *has* (5) very *good* (10) *food* (9).) Students become involved in a process of self-correction with the Vowel Colour Chart. In doing these exercises, the class atmosphere becomes one of shared determination to get the pronunciation right.

CONCLUSION

The Vowel Colour Chart has been used successfully in Toronto with immigrants with a wide range of first languages, as well as in Vancouver with visa students from many countries. Although it has been used with adults, it would be quite appropriate to use with children. It has been used in classes in pronunciation, in reading, in writing, and in classes in basic to advanced communication skills. Of course, it deals with only one of all the aspects of pronunciation. In teaching English vowels, consonants, stress, rhythm, and intonation, I have found that one of the easiest and most effective teaching aids is the Vowel Colour Chart.

NOTES

1. The Vowel Colour Chart was first developed in the Seneca College ESL program in Toronto under Neil Naiman.
2. "...A - noir; E - blanc; I - bleu; O - rouge; U - jaune... A - les orgues; E - les harpes; I - les violons; O - les cuivres; U - les flûtes." "...ié, ie, ieu, pour les violons angoissés; ou, iou, ui, oui, pour les flûtes aprilines..." etc. (Ghil, 1887, pp. 108-109)
3. See Nilsen and Nilsen (1971) and Woods (1983) for minimal pairs.
4. See "Major Spelling Patterns" with percentages for frequency in Morley (1979); "The Pronunciation of Stressed Vowels" chart in Prator and Robinett (1972); "Predicting Vowel Pronunciation" table in Woods (1983).

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