1  Back  Vowels
   • produced by shifting the body of the tongue back from central position
   • tip of tongue remains at level of lower teeth
   • 5 back vowels: 2 tense, 2 lax, 2 rounded
   • high, mid and low

2  /u/
   key word: hoot
   highest boundary for back vowel

3  DESCRIPTION
   • height: high
   • advancement: back
   • lip rounding: rounded
   • tense/lax: tense

4  Orthography
   • 29 different spellings
   • oo - boot
   • u - truly
   • u-e - rule
   • o - do
   • oe - shoe
   • ew - crew
   • ough - through

5  Characteristics
   • 90% of kids have mastery at 2 to 3.0
   • 16th in frequency in vowels; 35th in frequency of all sounds
   • rarely in initial position (exception - opps)
   • middle and final: noon, two
   • one of the vowels most frequently correct
   • little problem for non-native speakers

6  Uniqueness
   • joins with a glide /j/ in words that sound like the letter
   • example: you - /ju/, few - /fju/

7  /
   • key word: hood
   • tongue body slightly lower than /u/
   • never occurs in final position of English words
8 **Description**
- height: high
- advancement: back
- lip rounding: rounded
- tense/lax: lax

9 **Orthography**
- 12 different spellings
- most common: u as in put
- oo as in foot
- ou as in could

10 **Characteristics**
- 90% of kids have mastery at 3 to 4 years
- 15th in frequency in vowels; 35th in frequency of all sounds
- rarely in initial position (exception - opps) and final position
- one of the most often incorrect in kids with phonological disorders
- a “problem sound” for non-native speakers

11 **/o/**
- key word: owed
- very common in world languages
- /o/ establishes mid-space for back vowels
- tongue retracted at mid-plane

12 **Description**
- height: high-mid
- advancement: back
- lip rounding: rounded
- tense/lax: tense

13 **Orthography**
- 23 different spellings
- most common - o - no
- o-e - note
- oa - coal
- ew - sew
- ow - know
- oe - hoe
Characteristics
- occurs in initial, middle and final positions in words: oatmeal, boat, toe
- 90% of kids master by 2 to 3
- 8th in vowel frequency
- infrequent problem with kids and non-native speakers

Uniqueness
- may be produced as a diphthong in stressed syllable
- contrast vowel in prohibit vs slow
- transcribed as /o/ as monothong
- transcribed as /o/ as diphthong
- text refers to this as allophonic variation

/ / 
- key word: dog, ought
- many speakers do not have this sound as part of their dialect
- prevalent for eastern and southern speakers
- tongue retracted and almost flat in mouth

Description
- height: low- mid
- advancement: back
- lip rounding: rounded
- tense/lax: tense (others lax)

Orthography
- 17 different spellings
- most common - o - cloth
- a - fall
- au - caught
- aw - yaw
- augh - taught
- ough - thought

Characteristics
- occurs in initial, middle and final positions in words: office, cross, jaw
- 90% of kids master by 5 to 6
- 14th in vowel frequency
- infrequent problem with kids
- non-native speakers are OK if sound in their dialect: otherwise, have to drill
20 / /

- key word: hot
- only back vowel that is unrounded
- among the last to appear in kids
- most common vowel in the languages of the world

21 **Description**

- height: low
- advancement: back
- lip rounding: retracted
- tense/lax: tense

22 **Orthography**

- 16 different spellings
- most common (99% of the time) - o
- aa - bazaar
- ua - guard

23 **Characteristics**

- occurs in initial, middle and final positions in words: olive, clock, shah
- 90% of kids master by 3
- 5th in vowel frequency
- infrequent problem with kids and non-native speakers