

### Exercise 1 — Articulatory process

[p] — The lips come together to create a closure; velum presses up against pharynx to close off path to nasal cavity; air is pushed out by the lungs passing by vocal folds, which are relaxed, so not vibrating; pressure builds at lip closure; lips open to release air.

[n] — The blade of the tongue goes to alveolar ridge; velum does not raise to keep path to nasal cavity open; air is pushed out by lungs; air passes by closed/taught vocal folds causing them to vibrate for voicing; air goes through nasal and oral cavities; air is blocked at closure in oral cavity until release of stop.

### Exercise 2 — Natural classes

List all the members described by the following natural classes in English.

1. voiced fricatives /v,ð,z,ʒ/
2. velar stops /k,g,ŋ/
3. voiced alveolars /d,z,ɹ,l,n/
4. back (monophthong) vowels /u,ʊ,(o),ɔ, ɑ/  
(Some may have a merger between /ɔ/ and /ɑ/)
5. low (monophthong) vowels /æ,ɑ/

### Exercise 3 — Transcriptions of English

Give the broad transcriptions of the following English words according to your own pronunciation. (slightly modified from Akmajian et al.(2010) Chapter 3 Exercise 8.a and 8.c)

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|-----------------------------|--|
| 1. through /θru/            | 11. bow (bend at waist) /bau/                |
| 2. though /ðou/ or /ðəv/    | 12. bow (for shooting arrows) /bəu/ or /bou/ |
| 3. rough /ɹʌf/              | 13. hand /hænd/                              |
| 4. blink /blink/ or /blɪŋk/ | 14. which /wɪtʃ/                             |
| 5. usually /'juʒuəli/       | 15. bought /bɒt/ or /bat/                    |
| 6. hinge /hɪndʒ/            | 16. hands /hændz/                            |
| 7. shine /ʃaɪn/             | 17. lose /luːz/                              |
| 8. hang /hæŋ/ or /heɪŋ/     | 18. edit /'ɛdɪt/                             |
| 9. draft /dræft/            | 19. tasks /tæskz/                            |
| 10. try /tʃraɪ/             | 20. chat /tʃæt/                              |