Revision of material

What is speech? (cont.)

- Speech involves remarkably complex activity and precise control:
  - control of airflow through vocal organs (10:1 exhalation to inhalation ratio is possible)
  - control of vocal fold vibration (can reach 1000 vibrations per second)
  - timing of intricate movements of speech organs
  - rapid decoding by ear of sound waves passing through the air
  - precise and rapid recreation in our brains of the message intended by the speaker
  - feedback loop to the speaker

Sounds are minimal units of speech, another term used for individual sound is segment

- Two kinds of sounds:
  - vowels [i, a, u] and consonants [p, t, k, m]
- There are no more than 200-300 different speech sounds across the world languages
- Particular languages select from the stock of humanly possible sounds and order them differently
- Some sounds are very common and are found in all or almost all languages, e.g. [p, t, k, s, m, n, i]

Record a speech sample and try to cut it into individual segments very hard!

cf. experience of listening to foreign language that you do not know

- Speech is continuous and variable
- Movements of articulators are also smooth and continuous rather than disjointed

The smallest “chunk” of speech that can be pronounced in a fairly natural way is a syllable

- Every syllable
  - consists of at least one sound
  - has one prominent part, usually a vowel
- Types of syllables: e.g.: V, CV, VC, CVC, CCV, CCCV, VCC, VCCC, CVCC, etc.
- Words consist of syllables, they can be monosyllabic (one syllable) or polysyllabic (more than one syllable)
- Languages have different restrictions on how syllables
and words are formed, e.g. Zulu is a CV language