**Comparing the four spectrograms**

When we use smaller step sizes we obtain wideband spectrogram and with using wideband spectrogram we can find specific frequencies in time so resolution on time is higher.

When step sizes get wider we obtain narrowband spectrogram. Narrowband spectrogram gives general frequency information for audio but resoution in time is lower than wideband.

İf we want to obtain general frequency information of sound narrowband would be proper for our case, if specific frequency information of any part of the signal wanted, it would

be better to use wideband spectrogram.

So, in our spectrograms (A, B, C and D), when we increase the step size we obtain spectrogram with low time resolution so it was getting hard to obtain specific frequency of the any second of the signal.