FEMALE:

the diphtong aI is the one in which the frequencies are the highest, instead they are the lowest in the diphthong aU. The frequencies of oY are in the middle between the two.

aI: frequencies are lower at first and then they increase, after a little small decreasing in the time immediately after the beginning. Usually at the end of the time taking into account they decrease a little bit, so the highest frequency is measured before it.

OY: the behaviour is quite similar to the one of aI, but, in some measurements, the decreasing after the beginng and the one at the end are more significant than the ones in the other diphthong.

aU: its frequencies remain almost constant over the time, but the behaviour of the different measurements is not the same, in fact in some cases we have an increasing at the end, in other ones a decreasing.

The decreasing, after reaching the pick, at the end can be interpreted as the end of the pronunciation of the diphthong, so comparing them, it is possible to say that usually the diphthong OY is the one that requires less time, instead aU is the one that needs more time to be pronounced.

MALE:

The behaviour of the different measurements for each diphthong in this case are more irregular and in some cases they change in a “drastic” way.

The highest frequencies are, also in this case, reached by aI and the lowest ones by aU

aI: the behaviour is almost similar to the one in the female case.

OY: it started with a frequency generally lower than the one of aU, but it increases significantly over the time and at the end the frequency reached is higher than the one is measured in general for aU. In this case the frequency reached in the different measurements are quite different

aU: in this diphthong the behaviour in the different measurements is different usually at the end, in which in some cases we have a significant increasing, but usually it decreases over time.

It seems that in general the diphthong that needs more time to be pronounced is OY.

COMPARISON BETWEEN MALE AND FEMALES:

The behaviour revealed in the different measurements of the same diphthong in the case of males, is sometimes very different, instead it is more regular in the case of female.

The highest frequencies are reached by the male(more than 2500 Hz). We can say that also the lowest ones are reached by the male, comparing the ones of aU.

Moreover, it seems that in a general case, the time to pronounce each of them is almost the same for male and female.