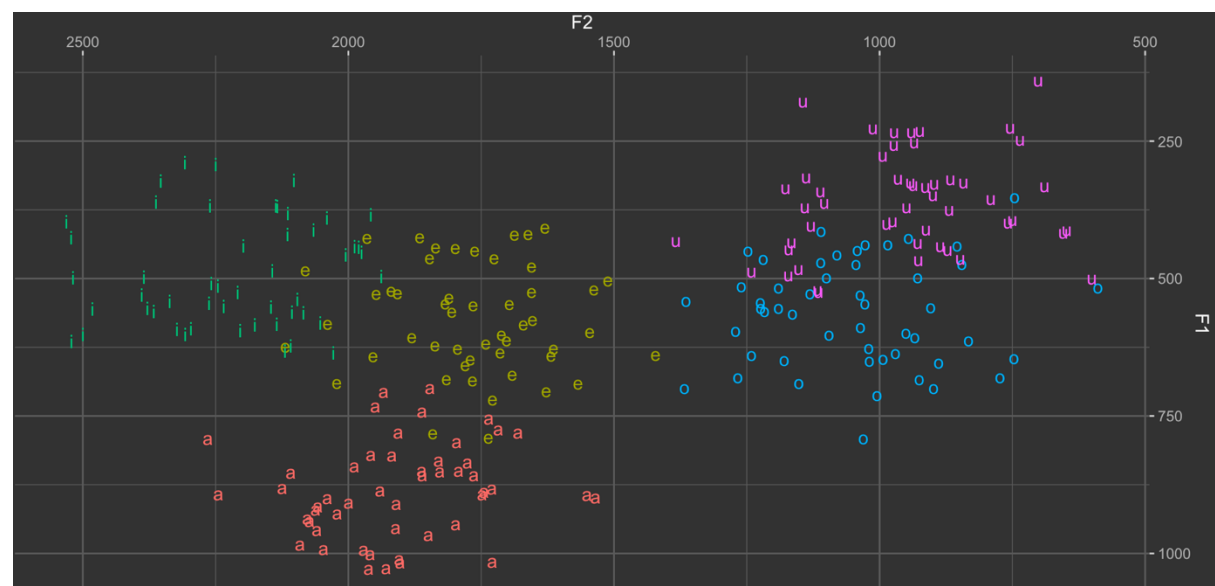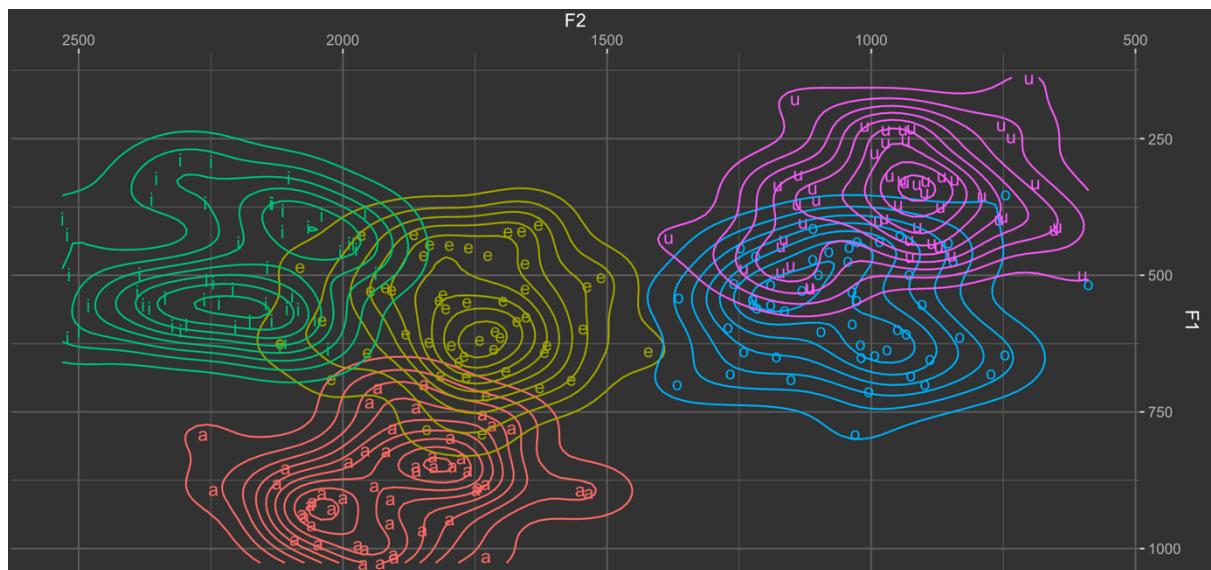Task - Draw the formants chart for five vowels Using the software of your choice, record five vowels of your choice (for example the five Spanish vowels, or five vowels chosen from your own native language). Try to pronounce clearly and produce soustained vowels (i.e., long duration vowels). Then measure the first two formants (F1 and F2) using Praat or using Speech Analizer. Draw the F1-F2 chart for those vowels.

I recorded five catalan vowels with Praat and I used a script to generate the formant table.
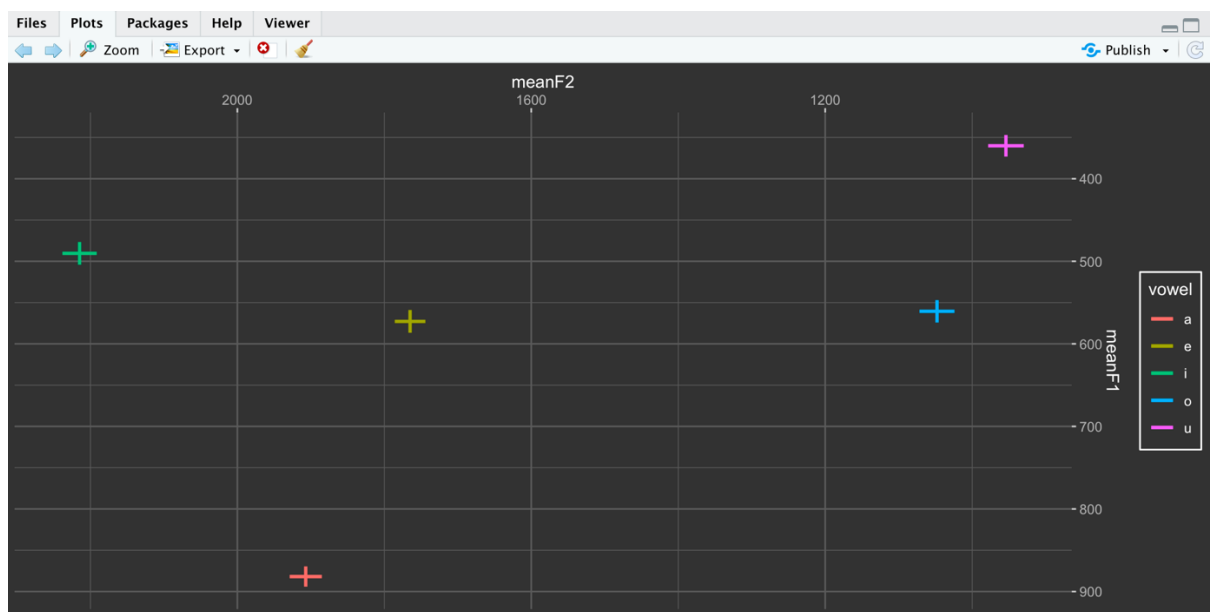
	1	2	3	4	5	6
row	vowel	time_index	v_time	time_abs	F1	F2
14	a	4	0.127	0.212	721	1243
15	a	5	0.17	0.255	736	1265
16	a	6	0.212	0.297	770	1262
17	a	7	0.255	0.34	747	1235
18	a	8	0.297	0.382	555	1271
19	a	9	0.34	0.425	636	1242
20	a	10	0.382	0.467	729	1275
21	e	1	0	0.788	1203	2363
22	e	2	0.057	0.845	557	1713
23	e	3	0.114	0.901	597	1703
24	e	4	0.171	0.958	626	1753
25	e	5	0.227	1.015	577	1717
26	e	6	0.284	1.072	476	1726
27	e	7	0.341	1.129	418	1758
28	e	8	0.398	1.186	507	1723
29	e	9	0.455	1.243	524	1697
30	e	10	0.512	1.3	483	1707
31	i	1	0	1.713	493	2034
32	i	2	0.042	1.755	257	2228
33	i	3	0.084	1.796	248	2247
34	i	4	0.125	1.838	224	2237
35	i	5	0.167	1.88	250	2247
36	i	6	0.209	1.922	247	2253
37	i	7	0.251	1.964	229	2244
38	i	8	0.293	2.005	238	2312
39	i	9	0.334	2.047	215	2309
40	i	10	0.376	2.089	248	2292
41	o	1	0	2.527	1097	2132
42	o	2	0.038	2.564	582	1002
43	o	3	0.075	2.602	567	952
44	o	4	0.113	2.64	567	1153
45	o	5	0.151	2.678	600	1250
46	o	6	0.188	2.715	598	840
47	o	7	0.226	2.753	578	873
48	o	8	0.264	2.791	404	757
49	o	9	0.301	2.828	497	790
50	o	10	0.339	2.866	560	787
51	u	1	0	3.279	377	2166
52	u	2	0.036	3.315	333	1201
53	u	3	0.071	3.35	335	1838
54	u	4	0.107	3.386	371	2161
55	u	5	0.143	3.422	373	2344
56	u	6	0.178	3.457	386	2349
57	u	7	0.214	3.493	300	687
58	u	8	0.249	3.529	304	1181
59	u	9	0.285	3.564	273	782
60	u	10	0.321	3.6	279	529

Some of my vowel generation.

This plot shows my vowel region.

The mean of my vowels.

For generate those plots I used R Studio, with the libràries "ggplot2" and "tidyverse".