Figure 1 Non-fatigue brain connectivity map of subject No. 3 (a) in non-fatigue state 0~20 minutes (b) in fatigue state 41~60 minutes
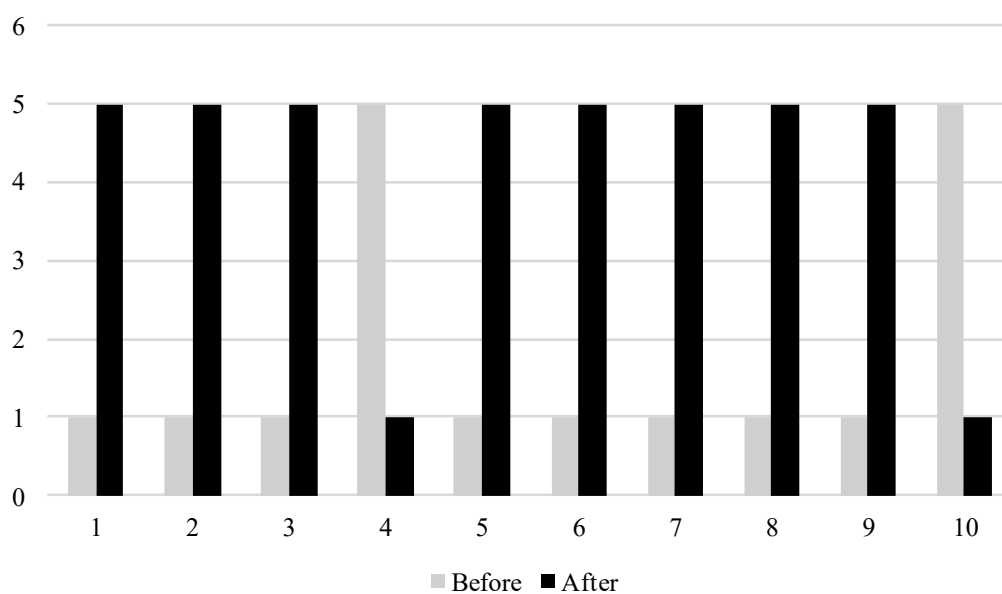

Figure 2 FAS questionnaire results for subject No. 3

Table 1 Top 10 ranking of wPLI for subject No. 3

	1	2	3	4	5	6
1	"C4-Pz"	"C3-O1"	"TP7-O2"	"C4-CP4"	"C3-C4"	"TP7-P3"
2	"C3-Pz"	"Fz-P4"	"TP7-T8"	"C4-Pz"	"F7-Fz"	"TP7-P4"
3	"C4-CPz"	"T7-TP7"	"F7-T7"	"T7-C4"	"FP2-C4"	"AF4-TP7"
4	"C3-CPz"	"TP7-P4"	"TP7-Oz"	"C4-P4"	"F7-TP7"	"AF3-TP7"
5	"AF4-C4"	"AF4-P4"	"AF3-P4"	"F3-FT8"	"F7-T7"	"F3-FT7"
6	"FT7-T8"	"P4-O2"	"C4-O1"	"T8-TP8"	"C4-CP4"	"TP7-O2"
7	"C4-CP3"	"AF3-P4"	"T7-T8"	"C3-C4"	"C4-CP3"	"Oz-O2"
8	"P7-P4"	"Cz-P4"	"Fz-P4"	"FC4-C4"	"FT7-TP7"	"TP7-T8"
9	"C3-C4"	"FC4-T7"	"TP7-P7"	"AF3-F7"	"AF3-F7"	"P4-O2"
10	"P7-T8"	"CP4-O2"	"T7-O2"	"FP2-Cz"	"F7-Cz"	"C4-Pz"

	7	8	9	10	11	12
1	"C3-C4"	"C3-C4"	"C3-O1"	"AF4-C4"	"C4-CP4"	"C4-CP4"
2	"C4-CP4"	"C4-CP4"	"C4-CP4"	"C4-O1"	"C4-Pz"	"AF3-P3"
3	"T7-O2"	"C3-O1"	"C3-C4"	"Fz-C4"	"FP2-CP4"	"FP2-C4"
4	"C4-Pz"	"F4-FC4"	"AF4-C3"	"C4-O2"	"FP2-C4"	"TP7-P3"
5	"T7-Oz"	"C4-CP3"	"CP3-O1"	"FC3-CP3"	"C4-CP3"	"C4-T8"
6	"TP7-O2"	"C4-Pz"	"F7-TP7"	"F7-FCz"	"FP2-P4"	"AF3-O1"
7	"F7-Fz"	"FP2-C4"	"F7-T7"	"AF3-Pz"	"FP2-Pz"	"CP4-Oz"
8	"P4-O2"	"T8-TP8"	"TP7-P7"	"F7-TP7"	"AF4-F3"	"Fz-P3"
9	"FCz-C4"	"TP7-Oz"	"C3-O2"	"FT7-FCz"	"AF4-P4"	"FP1-T8"
10	"TP7-Oz"	"C4-CPz"	"T8-TP8"	"AF3-P4"	"C4-CPz"	"F3-C4"

	13	14	15	16	17	18
1	"Fz-P3"	"T7-P3"	"T7-P3"	"AF4-Pz"	"FC3-Cz"	"TP7-P3"
2	"AF3-P3"	"TP7-P3"	"TP7-O2"	"AF3-Pz"	"T8-TP8"	"F8-T8"
3	"F3-FT8"	"AF4-P3"	"FCz-TP7"	"T8-TP8"	"Cz-C4"	"TP7-P7"
4	"FC3-P3"	"F8-T8"	"T7-P7"	"AF4-P4"	"FC3-FCz"	"FC4-TP7"
5	"Fz-CP3"	"AF4-P4"	"Fz-TP7"	"AF4-P3"	"FP1-F7"	"P4-T8"
6	"AF4-P3"	"AF4-Pz"	"T7-TP7"	"AF3-P4"	"C4-P7"	"T8-TP8"
7	"C4-CP4"	"AF4-T7"	"TP7-Oz"	"FP1-F3"	"TP7-P7"	"CP4-TP8"
8	"F3-FC4"	"FP2-Pz"	"TP7-P3"	"AF3-P3"	"FCz-C4"	"T8-CP4"

9	"TP8-P3"	"F8-T7"	"T8-TP8"	"FC4-C4"	"F7-Cz"	"FC4-T8"
10	"F7-Fz"	"T7-CP3"	"TP7-P7"	"F8-FT8"	"F7-FCz"	"FP1-T8"

	19	20	21	22	23	24
1	"TP7-P3"	"T8-TP8"	"FP1-F3"	"FP1-F3"	"FP1-F3"	"T8-TP8"
2	"C4-TP7"	"AF3-F8"	"T8-TP8"	"T8-TP8"	"T8-TP8"	"Cz-Pz"
3	"T8-TP8"	"CP4-O1"	"FP2-F8"	"FP2-T8"	"F7-FT7"	"FP1-F3"
4	"TP7-P7"	"Cz-Pz"	"P3-O1"	"F4-T8"	"AF4-Fz"	"Cz-P4"
5	"F8-FT8"	"F8-T8"	"F4-T8"	"F3-P4"	"FT7-Pz"	"CPz-Pz"
6	"FP2-F8"	"Cz-O1"	"FP2-F7"	"F7-FT7"	"AF4-F4"	"FCz-Pz"
7	"F8-T8"	"F8-FT8"	"P3-Oz"	"F8-T8"	"CPz-Pz"	"FCz-CPz"
8	"TP7-CP3"	"F8-TP8"	"FCz-CPz"	"F3-CPz"	"F8-TP8"	"F7-FT7"
9	"FP1-F3"	"CPz-O1"	"FP1-C4"	"T7-P3"	"F8-T8"	"Cz-CPz"
10	"C4-Pz"	"Cz-CPz"	"F8-FT8"	"FP1-T7"	"FP2-F7"	"FCz-P4"

	25	26	27	28	29	30
1	"FP1-F3"	"T8-TP8"	"FP1-FP2"	"FT7-T7"	"Cz-CPz"	"F7-FT7"
2	"F7-FT7"	"F7-FT7"	"F7-FT7"	"F7-FT7"	"Cz-Pz"	"T8-TP8"
3	"T8-TP8"	"FC4-T8"	"FP1-CP3"	"T8-TP8"	"FC3-C4"	"FCz-CPz"
4	"F8-T8"	"F4-T8"	"FP1-CP4"	"FP1-F7"	"FCz-CPz"	"FP1-FP2"
5	"FP1-FP2"	"CPz-Pz"	"FP1-CPz"	"AF4-FC4"	"Cz-Oz"	"AF4-FC4"
6	"FP2-F7"	"FP1-F7"	"FP1-Oz"	"AF4-F4"	"F3-C4"	"FCz-CP4"
7	"FP1-O1"	"F8-FT8"	"FP1-Pz"	"FP2-F7"	"FCz-Pz"	"CP4-Oz"
8	"FT7-P4"	"C4-T8"	"FP1-C4"	"F8-FT8"	"Cz-O2"	"FCz-Cz"
9	"FT7-Pz"	"FCz-Cz"	"T8-TP8"	"F8-T8"	"FCz-CP4"	"FP2-F7"
10	"FT7-O2"	"Cz-Pz"	"AF4-Fz"	"F3-Fz"	"FCz-Cz"	"AF4-F4"

	31	32	33	34	35	36
1	"Cz-Pz"	"FT7-T7"	"Cz-O1"	"AF4-F4"	"P4-O1"	"FP2-AF4"
2	"FCz-CPz"	"AF4-FC4"	"CPz-O1"	"F4-T8"	"AF4-F4"	"F4-TP8"
3	"FCz-Cz"	"FCz-CP4"	"FCz-Cz"	"F4-TP8"	"Cz-O2"	"AF4-TP8"
4	"AF4-FCz"	"F7-FT7"	"FCz-CPz"	"T7-P3"	"CPz-O2"	"F4-T8"
5	"Cz-CPz"	"AF4-F4"	"CPz-Pz"	"AF4-TP8"	"CP4-O1"	"AF4-FC4"
6	"F7-FT7"	"FP2-AF4"	"Cz-Pz"	"AF4-T8"	"F7-FT7"	"FT7-T7"
7	"Fz-Cz"	"FP1-AF4"	"AF4-FC4"	"T7-CP3"	"Pz-O2"	"AF4-Fz"

8	"CPz-Pz"	"FC3-CP4"	"FP2-AF4"	"Fz-T8"	"Pz-Oz"	"AF4-F4"
9	"Fz-FCz"	"AF4-FT8"	"Cz-CPz"	"FP2-AF4"	"F7-CP4"	"FC4-T8"
10	"FCz-Pz"	"AF4-FCz"	"AF4-FCz"	"Fz-TP8"	"FCz-CP4"	"Fz-TP8"

	37	38	39	40	41	42
1	"FP2-AF4"	"F4-TP8"	"FT7-T7"	"AF4-F4"	"T8-TP8"	"T8-TP8"
2	"AF4-Fz"	"F4-T8"	"AF4-C4"	"FP2-AF4"	"AF4-F4"	"FC4-T8"
3	"AF4-FC4"	"FT7-T7"	"F8-TP8"	"F7-FT7"	"F3-C4"	"F4-T8"
4	"AF4-F4"	"AF4-TP8"	"AF4-F4"	"F4-TP8"	"F7-T8"	"F4-TP8"
5	"AF4-FT8"	"FC4-T8"	"F8-T8"	"AF4-FT8"	"F7-TP8"	"F7-Pz"
6	"AF4-FCz"	"FC4-TP8"	"F7-FT7"	"FP1-TP8"	"AF4-FT8"	"FC4-TP8"
7	"AF4-CP4"	"Fz-TP8"	"AF4-FC4"	"AF4-TP8"	"F4-FT8"	"F7-CPz"
8	"F7-FT7"	"Fz-T8"	"FP2-AF4"	"F4-T8"	"FP1-T8"	"F8-T8"
9	"F4-TP8"	"AF4-Fz"	"F4-T8"	"Fz-TP8"	"AF4-FC4"	"FP2-T8"
10	"FP2-F3"	"AF4-T8"	"F4-TP8"	"F3-TP8"	"F4-T8"	"FP1-F3"

	43	44	45	46	47	48
1	"TP7-P3"	"T8-TP8"	"C4-CPz"	"FT7-FC4"	"T8-TP8"	"TP7-CP3"
2	"P4-T8"	"FC3-T8"	"C3-C4"	"F7-FC4"	"F4-T8"	"T8-TP8"
3	"T8-TP8"	"F3-C4"	"FCz-C4"	"FC4-T8"	"FP2-T8"	"Cz-P3"
4	"TP7-P7"	"AF4-FT8"	"Cz-C4"	"FT7-T7"	"F4-TP8"	"F8-FT8"
5	"C3-P3"	"F7-TP8"	"FP1-C4"	"FP2-T8"	"C4-T8"	"FP1-AF3"
6	"Pz-T8"	"F7-T8"	"FC3-C4"	"F4-TP8"	"Cz-C4"	"FP1-FP2"
7	"P7-P3"	"TP7-P7"	"T8-TP8"	"FT8-T8"	"F8-T8"	"T7-CP3"
8	"F8-T8"	"F4-T8"	"FP1-F3"	"F8-FT8"	"F7-Fz"	"TP7-P3"
9	"Fz-C3"	"F4-TP8"	"C4-CP3"	"F7-Cz"	"AF3-F7"	"Cz-C4"
10	"P3-T8"	"FP2-F3"	"F8-T8"	"F4-T8"	"F7-FT7"	"AF4-TP8"

	49	50	51	52	53	54
1	"F4-TP8"	"F4-TP8"	"F4-TP8"	"F4-TP8"	"F4-TP8"	"F4-TP8"
2	"F8-T8"	"FP2-AF4"	"AF3-AF4"	"F4-T8"	"FP1-AF3"	"FT7-T7"
3	"F8-TP8"	"AF4-TP8"	"F7-FT7"	"FP1-AF3"	"FC4-TP8"	"F4-T8"
4	"T8-CP4"	"AF3-AF4"	"FP2-TP8"	"C4-T8"	"F4-T8"	"FP1-AF3"

5	"C4-T8"	"F4-T8"	"F8-TP8"	"FP1-Fz"	"FC4-T8"	"FT8-T8"
6	"FC4-TP8"	"FC4-TP8"	"AF4-Fz"	"AF4-FT8"	"FP1-TP8"	"FC4-TP8"
7	"FT7-T7"	"F7-FT7"	"F4-T8"	"FC4-T8"	"C4-TP8"	"AF4-Fz"
8	"FP1-F3"	"FC4-T8"	"FP1-AF3"	"AF3-F3"	"Fz-TP8"	"FP1-TP8"
9	"F4-T8"	"AF4-Fz"	"FT7-T7"	"FC4-TP8"	"FP2-T8"	"AF4-TP8"
10	"F3-CP3"	"FP1-T8"	"AF4-TP8"	"FP2-TP8"	"C4-T8"	"FC4-T8"

	55	56	57	58	59	60
1	"F4-TP8"	"F4-TP8"	"F4-T8"	"F4-T8"	"FP2-T8"	"TP7-CP3"
2	"Fz-TP8"	"FP1-AF3"	"F4-TP8"	"F4-TP8"	"AF3-AF4"	"CP3-P7"
3	"FP2-T8"	"F4-T8"	"TP7-P7"	"T8-TP8"	"FP2-TP8"	"Cz-CP3"
4	"FP2-TP8"	"FC4-TP8"	"FC4-T8"	"F8-FT8"	"F4-TP8"	"FP1-TP8"
5	"F4-T8"	"FC4-T8"	"TP7-P3"	"FC4-TP8"	"P7-P3"	"C4-T8"
6	"FC4-TP8"	"FP1-TP8"	"T7-P3"	"FC4-T8"	"CP3-P7"	"C4-TP8"
7	"FC4-T8"	"FP1-T8"	"FC4-TP8"	"CP4-P4"	"F8-FT8"	"T7-CP3"
8	"AF4-TP8"	"AF3-F4"	"FP1-T8"	"P4-O2"	"FP1-AF3"	"Cz-C4"
9	"FP1-TP8"	"Fz-TP8"	"Cz-P3"	"P4-Oz"	"TP7-P3"	"FT8-TP7"
10	"Fz-T8"	"C4-T8"	"F7-Fz"	"Fz-TP8"	"F4-T8"	"T7-C3"