

Self-Paced Sample Selection for Barely-Supervised Medical Image Segmentation (Supplementary Material)

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Table 1. Investigation of the hyperparameters: the initial value α and the growth coefficient δ of the age parameter λ for self-paced learning. Results are measured by Dice similarity coefficient(%). According to this experiment, we set $\alpha = 0.1$ and $\delta = 1.01$ in our method.

$\delta \backslash \lambda$	1.01	1.02	1.03	1.05	1.1
0.1	86.19	85.21	84.98	84.60	84.67
0.2	85.66	85.33	84.52	84.69	84.44
0.3	85.45	85.21	84.39	84.37	84.28

Table 2. Investigation of the hyperparameters: the temperature coefficient τ for self-paced learning. According to this experiment, we set $\tau = 0.8$ in our method.

τ	DSC(%)	Jaccard(%)	ASD(voxel)	HD(voxel)
0.2	65.73	51.98	13.01	33.78
0.4	75.47	60.35	8.02	20.95
0.6	78.26	63.05	7.78	19.69
0.8	86.19	75.89	3.49	13.54
1.0	80.24	68.24	7.58	18.94

† Junming Su and Zhiqiang Shen contributed equally to this work.

Table 3. Investigation of different strong augmentations: CutOut and CutMix. According to this experiment, we select CutMix in our method.

Method	DSC(%)	Jaccard(%)	ASD(voxel)	HD(voxel)
CutOut	85.03	75.01	3.96	14.89
CutMix	86.19	75.89	3.49	13.54

Table 4. Experiments on LA datasets with various No. barely-labeled 3D images (single-labeled slice) .

τ	DSC(%)	Jaccard(%)	ASD(voxel)	HD(voxel)
5%	68.49	53.83	12.44	31.68
10%	80.50	66.42	7.37	18.88
20%	86.19	75.89	3.49	13.54
50%	87.98	77.33	3.01	12.14
100%	89.11	79.87	2.76	11.03