Supplemental Materials

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Table 1. Ablation study of the number of negatives on EyeQ dataset. We investigate the effect of the number of hard negatives K_t on multi-level contrastive learning. Specifically, we adjust the number δ of negatives in the similarity matrix by setting δ to different values, which in turn dictates the number of hard negatives used for CL and self-paced learning. CoMCL obtains the best performance on EyeQ when δ is set to 4,000. The main reason lies in: a larger δ implies more negatives, which can improve the performance of CL, but also introduces a significant long-tail effect in self-paced learning. In contrast, a lower δ value is beneficial for self-paced learning but may degrade the effect of CL.

| Methods | Accuracy | Kappa |
|-------------------|----------|-------|
| $\delta = 1,000$ | 0.864 | 0.853 |
| $\delta = 2,000$ | 0.873 | 0.863 |
| $\delta = 4,000$ | 0.884 | 0.872 |
| $\delta = 8,000$ | 0.875 | 0.866 |
| $\delta = 16,000$ | 0.868 | 0.859 |