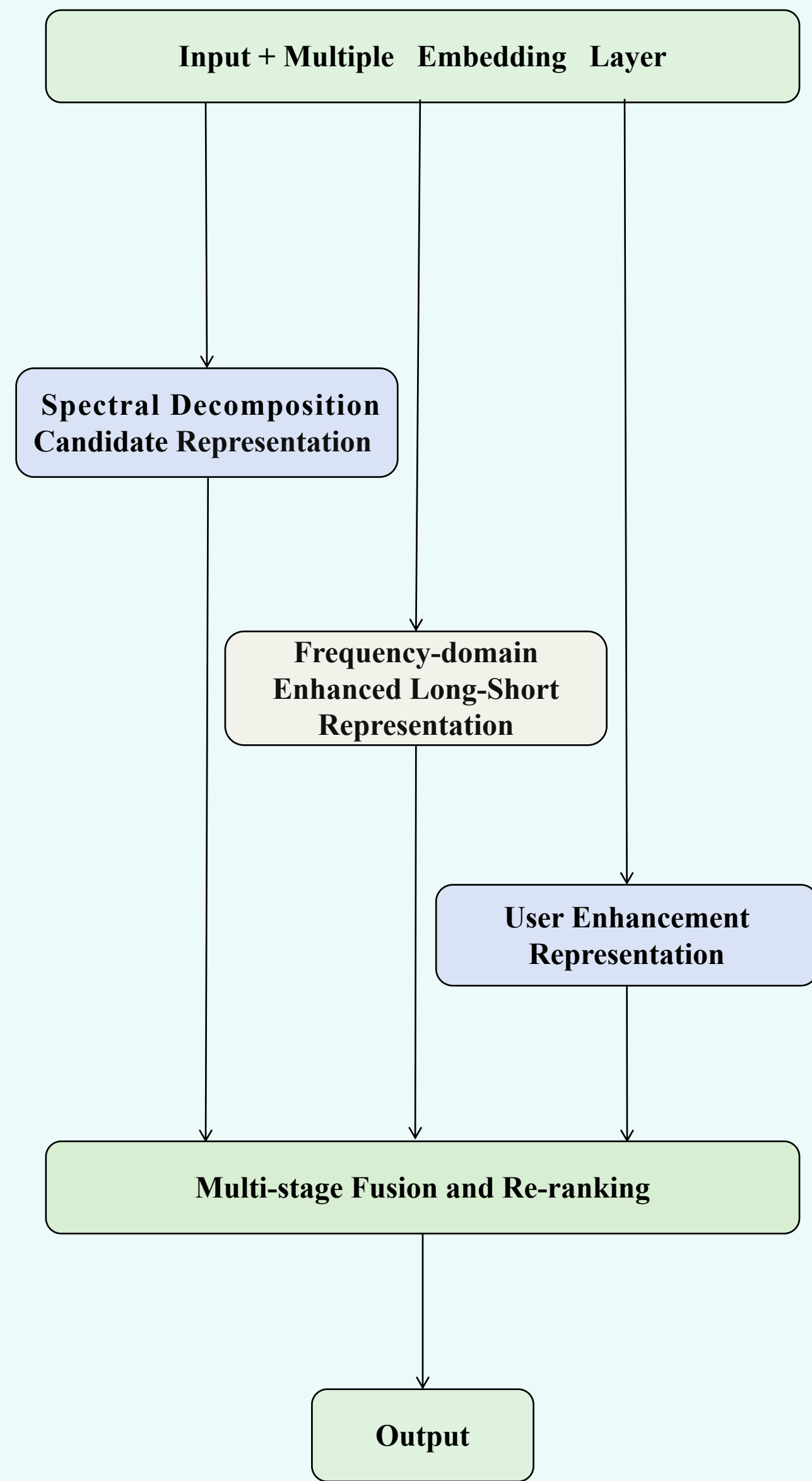
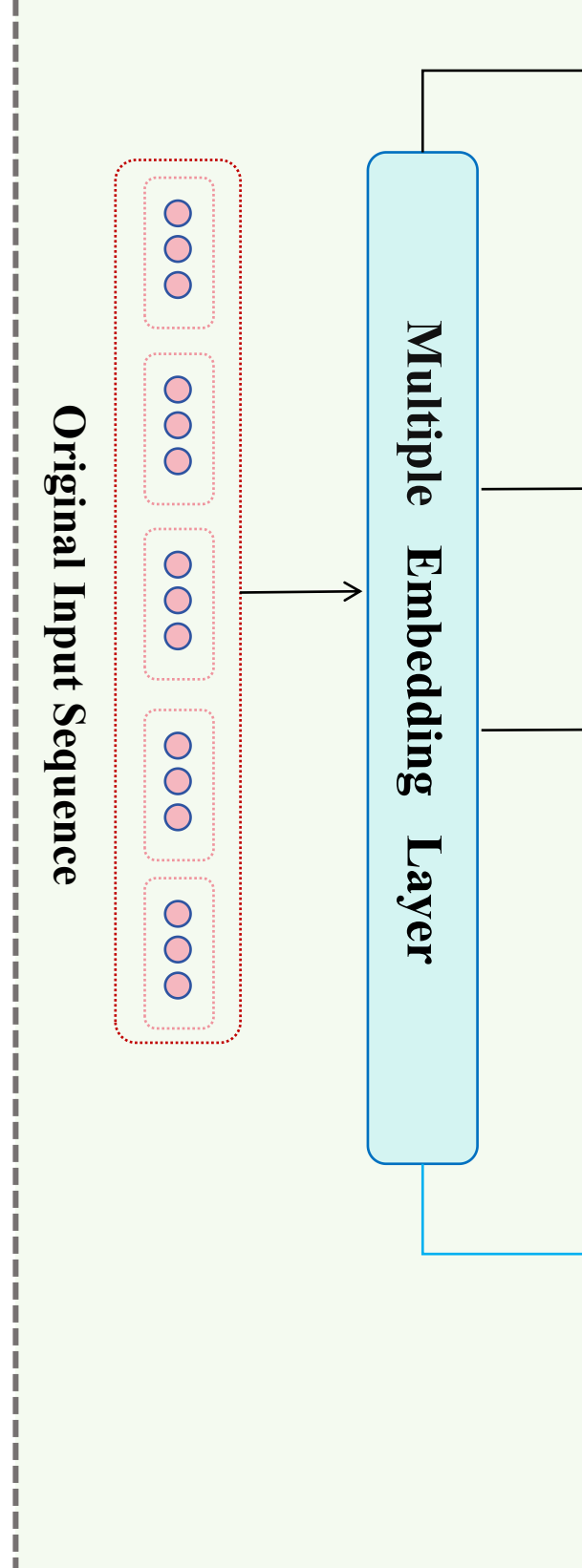


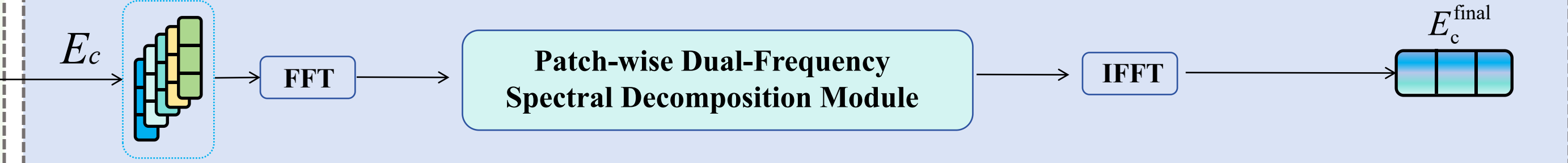
(a) Overview Framework of FMMCRec



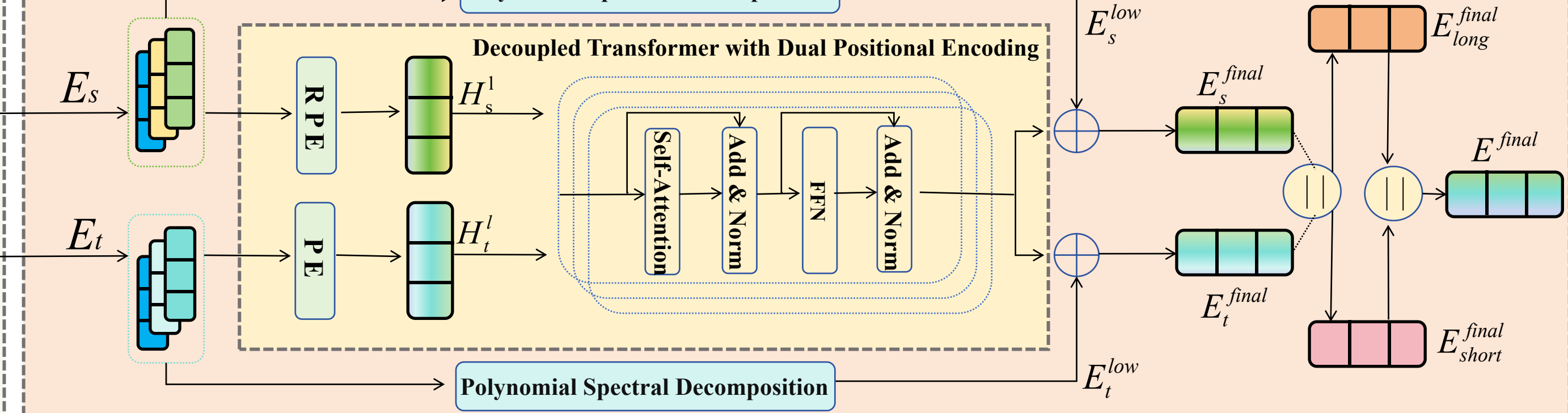
(b) Input Multiple Embedding Layer



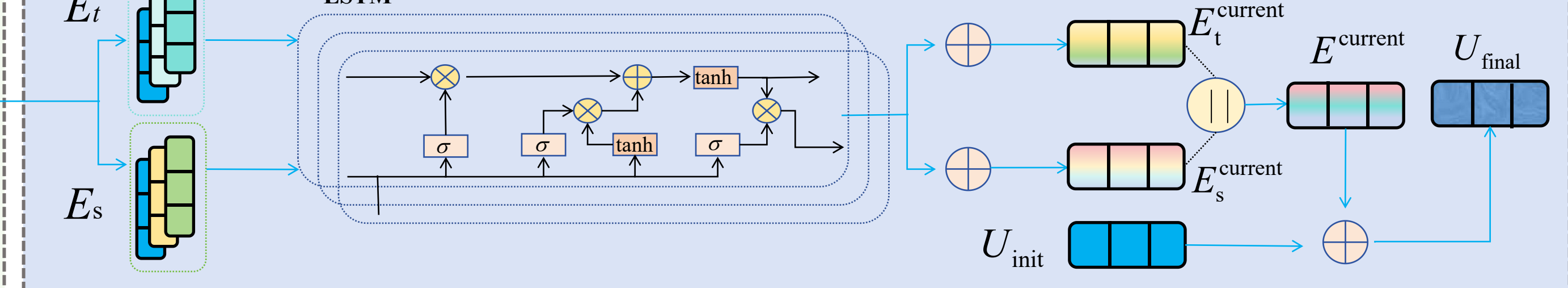
(c) Spectral Decomposition Candidate Representation



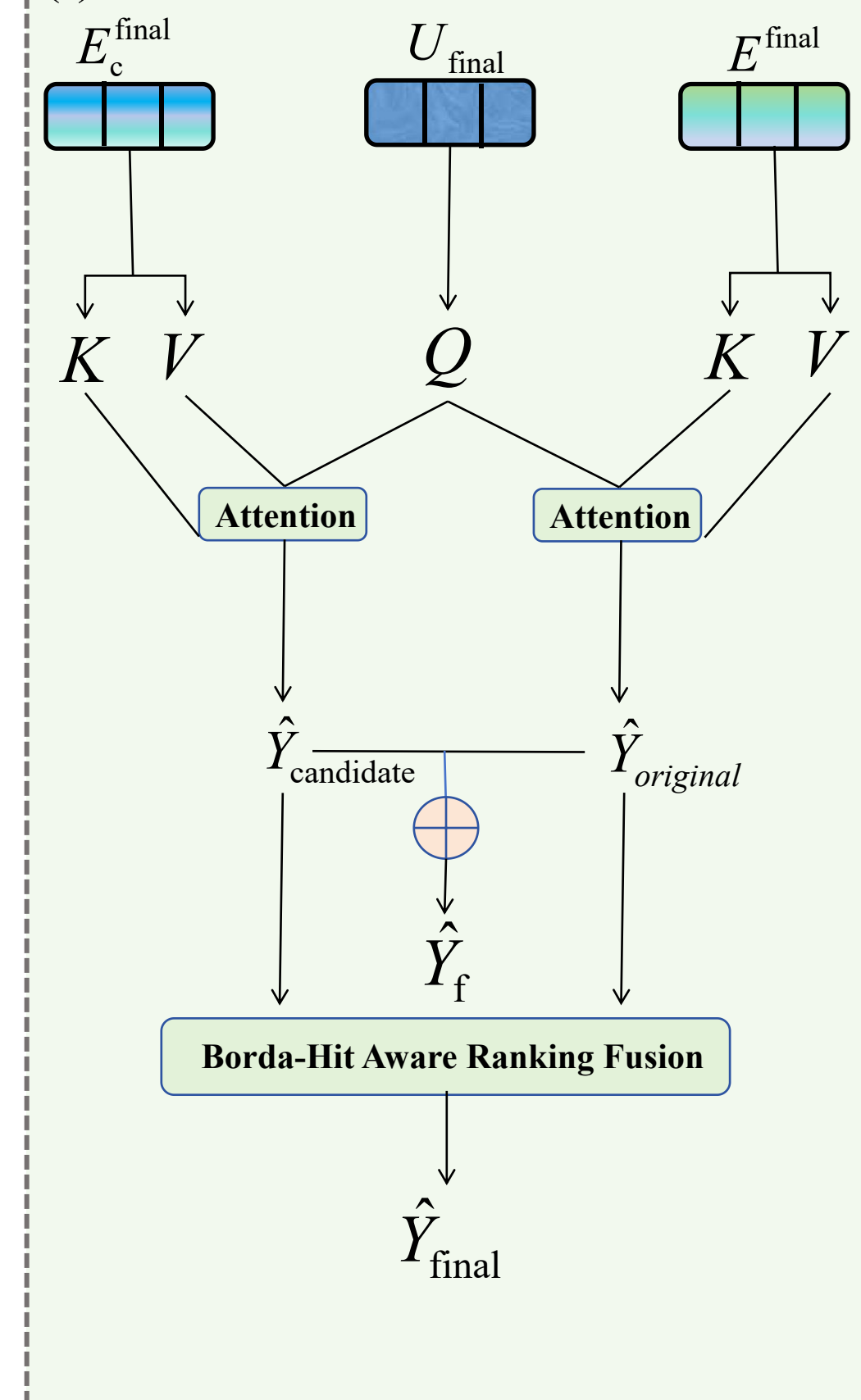
(d) Frequency-domain Enhanced Long-Short Representation



(e) User Enhancement Representation



(f) Multi-stage Fusion and Re-ranking



(g) Multi-view Contrastive Learning

