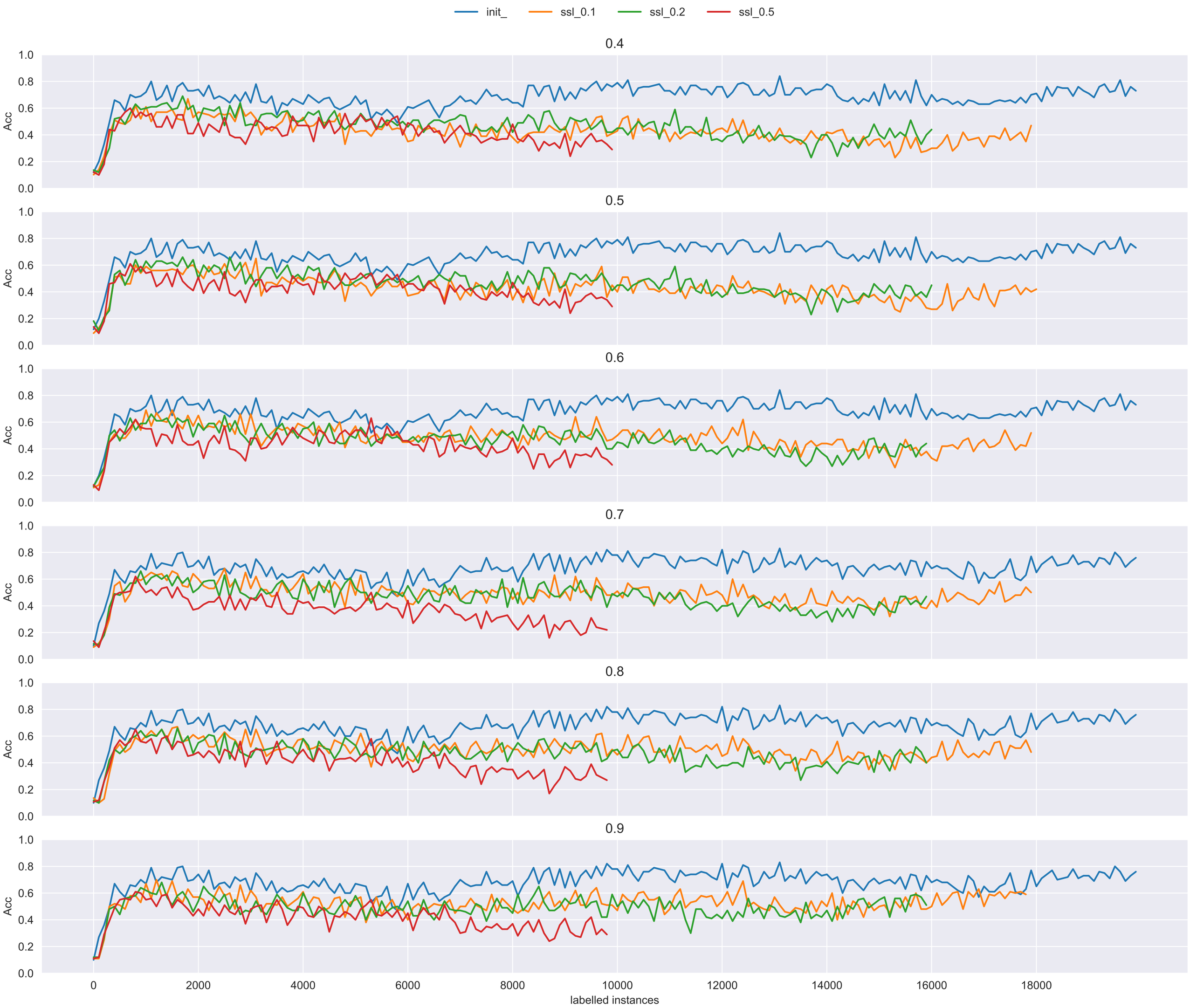LED_gradual_NB