$$\frac{\partial L}{\partial w_{i,j,k}} = \frac{\partial L}{\partial y_{i,k}} \frac{\partial y_{i,k}}{\partial v_{i,k}} \frac{\partial v_{i,k}}{\partial w_{i,j,k}}$$

$$\frac{\partial L}{\partial w_{i,j,k}} = \left(\sum_{k'} \delta_{i+1,k'} w_{i+1,k,k'} \right) \left(f(v_{i,k})(1 - f(v_{i,k})) \right) \left(y_{i-1,j} \right)$$

$$\frac{\partial L}{\partial v_{i+1,k}} = \delta_{i+1,k}$$

$$= \delta_{i,k} \left(y_{i-1,j} \right)$$