$$U^{t+1} = \sum_{n=1}^{N} u_n^{t+1} = \sum_{n=1}^{N} u_n^{t} \left(\sqrt{\frac{1-\varepsilon}{\varepsilon}}, if\ error, \sqrt{\frac{\varepsilon}{1-\varepsilon}}, if\ correct \right) = U^{t} \left(\sqrt{\frac{1-\varepsilon}{\varepsilon}} \cdot \varepsilon, if\ error, \sqrt{\frac{\varepsilon}{1-\varepsilon}} \cdot (1-\varepsilon), if\ correct \right)$$