Repeat **I** times:

For every agent A:

1. With probability $\frac{\gamma}{n}$ let agent A add a new distributed vowel
2. Let every agent merge their vowels until no merges are possible
3. Select random neighbour B with probability = **1/4**
4. Play the imitation game:
    1. **A:** Select random vowel $\mathbf{v_A}$ from repertoire, synthesise and send it. If no vowels in repertoire, generate random vowel.
    2. **B:** Receive synthesised vowel $\mathbf{v'_A}$ and find the closest repertoire match $\mathbf{v_B}$. If no vowels in repertoire, generate new vowel as close as possible to $\mathbf{v_A}$.
    3. **B:** Send synthesised closest match $\mathbf{v'_B}$ as response.
    4. **A:** Receive synthesised response $\mathbf{v'_B}$ and find closest repertoire match.
    5. **A:** Send *True* if closest match is $\mathbf{v_A}$, otherwise send *False*.
    6. **B:** Receive success boolean. If *True*, shift $\mathbf{v_B}$ closer to $\mathbf{v_A}$, if *False* and $\mathbf{v_B}$ success rate $> \beta_S$, move $\mathbf{v_B}$ away from $\mathbf{v_A}$ and generate new vowel as close as possible to $\mathbf{v_A}$, otherwise still shift $\mathbf{v_B}$ closer to $\mathbf{v_A}$.
5. With probability α let all agents remove vowels with success rate $< \beta_H$