**Algorithm 1** Select Effective Time Units

**function** EFFECTIVESTUSMAP($S, R, T, D, L, s, \rho$)
**Input:** Stimuli $S$, responses $R$, times $T$, delays $D$, trials $L$, stimulus $s$, and threshold $\rho$
**Output:** Map of effective STUs $B$
  **for all** $t \in T$ **do**
    **for all** $d \in D$ **do**
      $I \leftarrow \emptyset$ ▷ Trials when stimulus $s$ is presented
      $I' \leftarrow \emptyset$ ▷ $L \setminus I$

      **for all** $l \in L$ **do**
        **if** $S_{t-d}^{(l)} = s$ **then**
          $I \leftarrow I \cup \{l\}$
        **else**
          $I' \leftarrow I' \cup \{l\}$
        **end if**
      **end for**

      $P_{t,d} \leftarrow$ SENSITIVITYINDEX($I, I', Y, t$)

      **if** $P_{t,d} \geq \rho$ **then**
        $B_{t,d} \leftarrow 1$
      **else**
        $B_{t,d} \leftarrow 0$
      **end if**
    **end for**
  **end for**
    ▷ 7 ms is the resolution of stimuli presentation
  $B \leftarrow$ DOWNSAMPLE($B, 7$)
  **return** $B$
**end function**