Algorithm 1 Random / Greedy Functional Teaching

Input: Target f^*, initial f^0, per-iteration pack size k, small constant $\epsilon > 0$ and maximal iteration number T.

Set $f^t \leftarrow f^0, t = 0$.

while $t \leq T$ and $\|f^t - f^*\|_{\mathcal{H}} \geq \epsilon$ **do**

  The teacher selects k teaching examples:
  Initialize the pack of teaching examples $\mathcal{K} = \emptyset$;
  for $j = 1$ **to** k **do**
    (**RFT**) 1. Pick $\boldsymbol{x}_j^{t\,*} \in \mathcal{X}$ randomly;

    (**GFT**) 1. Pick $\boldsymbol{x}_j^{t\,*}$ with the maximal difference between f^t and f^*: