Text Verification Problem
Possibly corrupted text file. Does it correspond to real text?

Given string $S$ of length $n$:
1. Determine if $S$ is "valid" text (i.e., made up of valid words)
2. If so, "reconstruct" $S$ - split into valid words

Assumptions:
1. All lowercase
2. No punctuation
3. Given a dictionary that takes as input string $w$

\[
\text{Dict}(w) = \begin{cases} 
\text{true (1)} & \text{if } w \text{ is a valid word (including "a" and "I")} \\
\text{false (0)} & \text{otherwise} 
\end{cases}
\]

Note: $S$ = "thinknot" -> 2 correct solutions: think not thin knot

ex: $S = \text{thinknothing}$

Possible to solve in $O(n^2)$, $(n = 131)$