Mobile applications are becoming more pervasive, impacting educational practices across learning contexts, subsequently changing the landscape of education and the ubiquity of smartphones among end-users. This paper focuses on the pedagogical implications of a crossword puzzle mobile application (mobile app) developed for teaching of vocabulary to students for language learning. The crossword puzzle mobile app is a game that makes the teaching-learning process attractive to students for the effective acquisition of vocabulary. Not only does the crossword puzzle app offer a degree of challenge that motivates students to try to solve the puzzle by making learning exciting and rewarding, it also offers the opportunity for students to practise and repeat the sentence pattern and vocabulary, which in turn assists in the improvement of students’ performance in English. From a pedagogical perspective, making inferences, evaluating choices, and drawing conclusions are key skills essential for completing crossword puzzles, and hence, the use of a crossword puzzle app not only helps learners widen their vocabulary but also deepen their mastery of the English lexis.