Reflection Activity 3:

The choice of sorting algorithm only impacts the performance of the searching algorithm if the searching algorithm relies on a sorted dataset, and you have an unsorted one. So, if you want to for example use the binary search algorithm on an unsorted data structure then you first need a sorting algorithm. This need of a sorting algorithm then obviously impacts the performance of the searching algorithm as you need to first sort the dataset and then can start the search. In comparison to for example the linear searching algorithm which works just as well with an unsorted data structure, the combination of a sorting algorithm and a searching algorithm needs more time. If you work on a sorted data structure, then binary search is much faster than linear search as with binary search with each step you eliminate half of the dataset while with linear search you go through the dataset one step at a time. Binary Search is, therefore, much more efficient and allows the code to run much smoother and faster.