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1. No, they do not affect the cycle time of an individual instruction. An instruction will take the same amount of time no matter how many other instructions are performed in parallel.

2. Data dependencies : when a later instruction finishes after an earlier one, the earlier instruction cannot place its effect on the later one.

Control dependencies : when a condition decision depends on results from instructions that have not been executed yet.

3. Write through writes data back to the main memory immediately upon change in the cache. Write-back is faster and writes to memory only when a cache line is replaced, but more care is required in the design to ensure data is not lost.

4. Locality of reference principle states that at any given time most memory references will be confined to one or a few small regions of memory. Since references that are executed sequentially are stored in close proximity to each other, this means that it will take less time to get to a reference from a related reference.

5. The CPU can do other tasks while waiting for the I/O operation to be done because the CPU can be split into multiple threads. The interrupt allows the OS to share cpu resources all at once. The I/O uses another interrupt to let the CPU know it has finished.

6. Some adverse complications would be if i wanted to press two separate keys at the saame time. Like CTRL + C. With a buffer it would simply take in the input as CTRL and C separately.