**Keyboard Commands and Corner Cutting**

**Objective:** To introduce 10 keyboard shortcut methods that will save time when analyzing data, writing formulas, or navigating on a spreadsheet.

**Discussion:**  The mouse is a versatile and user friendly device that many people could not do without. However, it is not always the fastest tool to use to get things done on Excel. This activity will introduce some useful keyboard shortcuts that will get you moving faster and getting things done in less time. Whether formatting, calculating, analyzing or managing data.

1. **Control Key Shortcuts with letters:** All of these commands are available in menus but the goal here is to save time by working efficiently.

**Undo:** "Control" + "z". Probably one of the most useful functions outside of copy and paste.

**Cut, Copy, Paste:** Since these functions are typically used in conjunction with each other they can be done with the left hand with the other hand still on the mouse for placement of the cursor. Hold the left control key on the keyboard with the left pinky finger and then position the pointer, middle finger and ring finger over the V, C and X keys respectively for rapid fire highlight, copy, click and paste.

**Cut:** "Control" + "x"

**Copy:** "Control" + "c"

**Paste:** "Control" + "v" which is not **Print:** "Control" + "p"

**Bold**, *Italics*, Underline: "Control" + "b", "i", or "u"

**Highlight All (to highlight the entire worksheet):** "Control"+ "a".

**Go to or jump to any cell:** "Control" + "g"

**Find any text or values:** "Control" + "f"

**Open a New Document:** "Control" + "n"

**Save your work!:** Press "Control" + "s" at any time. If the worksheet has not yet been saved it will open the "Save As" dialogue box.

2. **Tabbing from one window to the next**. Holding "Alt" and then pressing "Tab" will toggle back to the last active window in which you were working. Do this once and it will switch directly. Continue to hold in "Alt" and pressing "Tab" again will toggle through all windows that are open. Holding down the "Shift" key while doing this will cause it to toggle in the opposite direction.

If you want to copy the email addresses of all the math teachers in a school into Excel you can highlight an email address, press "Control" + "c", then press "Alt"+"Tab", click where to paste and then press "Control" + "v" to paste and repeat.

If you are browsing the web and using multiple tabs within the same browser then you can use "Control" + "Tab" to skip from one tab to the next to the right. "Control" + "Shift" + "Tab" will advance through the tabs in the other direction (to the left).

3. **Jump to a boundary:** Particularly with "The Spreadsheet Lab Manual" where there are large collections of calculating cells in an array it can often be useful to jump to a boundary. This can be done easily using the keyboard by holding "Control" and pressing a toggle arrow (such as up, down, left or right). The cursor will advance along a row (side to side) or column (up and down) of cells until it hits a boundary. A boundary is the last cell of a group of occupied cells or the first occupied cell on the end of a group of empty cells.

4. **Highlighting cells:** Holding the shift button while using the arrow keys is a way to highlight text or rows of cells in Excel. This can be useful for graphing in which cells need to be highlighted to specify the range of values to be graphed. This technique can also be used to highlight entire ranges of cells as described in trick number 5.

5. **Highlight all cells in a row or column.** If the cursor is in the middle of the range hold "Control" and jump to the end of the boundary to be on one end of the row or column to be highlighted. Then simultaneously hold down "Shift" and "Control" and the press the arrow in the direction to be highlighted. If the range needs to be copied and pasted, see step 3. If it needs to be pasted in another workbook see step 2.

6. **Page up/Page down/Home/End.** Find these keys on the keyboard and use them when navigating on a large spreadsheet. **Skipping from one worksheet to another.** Pressing "Control" and "Page Up" will advance to the next worksheet on a document with multiple worksheets. "Control" + "Page Down" will go backwards through the worksheets. Pressing "Control" + "Home" will place the cursor in cell A1. Pressing "Control" + "End" will place the cursor at the cell that is even with the lowest row and farthest right column on the worksheet.

7. **When typing references in a formulas use the "F4 shortcut":**  To create a fixed reference a cell address must have a dollar sign placed in front of the column letter and one in front of the row number. In order to do this without manually typing the dollar signs you can press F4 while the cursor is on the cell for which the reference is to be altered. If it starts as a floating reference such as B5 then as long as the cursor is in contact with either the B or the 5 then pressing "F4" (the function keys up top i.e. F1, F2) will cause B5 to automatically change to $B$5. Pressing it a second time will change it to B$5, pressing it a third time changes it to $B5, and finally a fourth time it reverts back to B5.

8. **Format Painter:** If you need to match a style of font or cell formatting (such as background color, outline, font color and style) that you have already present in the spreadsheet (or on a neighboring spreadsheet). Highlight the cell with the formatting you want and then click on the format painter  button on the home menu. Highlight the cells that you want to change and they will take on the same formatting as the previously selected cell. *This eliminates searching for fonts and adjusting size to match cell formats quickly.*

9. **Know the value of any cell immediately:** Go to an empty cell and type = and then the cell address of the cell you would like to know or display.

10. How to speed up **any repetitive task:** Create a **macro**. A macro is a series of keystrokes or mouse clicks within a spreadsheet that can be executed by pressing "control" + any key you specify. This is particularly valuable if you are trying to sort through data or reformatting something.

To write a macro find the Macros icon in the view menu. Select "Use Relative References" if it is a macro that you would like to apply to cells or at locations at differing positions on any given spreadsheet. If it is to be applied only to specific cells (such as to correct a specific error on a standardized worksheet and the macro is only to apply to a specific cell (i.e. D5) or specific range of cells then make sure that "Use Relative References" is not selected.

Then select "Record Macro" and perform the exact keystrokes needed to perform the operation you would like to record as the macro, and then click "Stop Recording" in the same macro menu. The macro should be named and saved and then can be run.

The worksheet must be saved as a "Macro-Enabled-Workbook" which users must be aware of the fact that the "control" key has been programmed to combine with certain letters to perform a specific macro operation(s) when the macro command is given. If **"Use Relative References"** is selected it will be performed based on the cursor position when the macro command is given. If it is not selected then it will perform that operation on the specific cell addresses (or cells) on which it was performed when the macro was recorded.

**If other worksheets are open the same macro can be performed in them so it can be created in one workbook and applied to another work book although caution must be used when assigning and using macro keyboard shortcuts so not to interfere with any of the above specified control key shortcuts.**

The techniques on this worksheet will enable anybody working on a spreadsheet to work more smoothly and efficiently on a spreadsheet to complete data analysis, present data and display graphs and trends, manage quantities of data. The goal is always to do this as quickly and as accurately as possible. These techniques when used properly will help with both of these goals.

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